Public Notice

Date:
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U.S. Army Corps of Engineers

Application for Permit under Authority of Section 404 of the Clean Water Act (33 U.S.C. 1344).

Applicants:

Tennessee Gas Pipeline Company
(Stagecoach Lateral Pipeline)
1001 Louisiana Street
Houston, Texas 77002

Central New York Oil and Gas Company, LLC
(Stagecoach Storage Project)
3131 West Alabama, Suite 500
Houston, Texas 77098

In Reply Refer to:

Baltimore District, Processing Number 2001-00793-12
(Stagecoach Lateral Pipeline)
State College Field Office
1631 South Atherton Street
State College, Pennsylvania 16801
814.235.0571
Attn: Michael Dombroskie
Mike.Dombroskie@usace.army.mil

Buffalo District, Processing Number 2000-00262(1)
(Stagecoach Storage Project)
Auburn Field Office
7413 County House Road
Auburn, New York 13021
315.255.8090
Attn: Margaret Crawford
Margaret.A.Crawford@usace.army.mil

INTRODUCTION

Tennessee Gas Pipeline Company and the Central New York Oil and Gas Company, LLC (CNYOG) have submitted separate Department of the Army requests to construct a natural gas pipeline (Tennessee Gas Pipeline) from an existing line in Bradford County, Pennsylvania, to a proposed natural gas storage facility in Tioga County, New York (CNYOG). Although two separate permit requests were submitted, the proposals will be reviewed as one single and complete project. The following is a description of this proposed project:

Tennessee Gas Pipeline Company (Tennessee), 1001 Louisiana Street, Houston, Texas 77002, has requested a Department of the Army permit to install an underground natural gas pipeline (30-inch diameter) extending approximately 23.6 miles north from its Compressor Station 319 in Bradford County, Pennsylvania, to the proposed Stagecoach Storage Field in Tioga County, New York (sheets 1-8). The project is referred to in this Public Notice as the Stagecoach Lateral Pipeline.

The applicant's stated purpose for the proposed pipeline is to provide gas transportation service for the Stagecoach Storage Project, which will benefit Northeast and Appalachian energy markets by adding another source of flexible natural gas storage.

Central New York Oil and Gas Company, LLC (CNYOG), 3131 West Alabama, Suite 500, Houston, Texas 77098, has requested authorization for a Department of the Army permit to develop an underground natural gas storage facility in Tioga County, New York. The project, known as the Stagecoach Storage Project, consists of the development of two existing, nearly depleted, natural gas reservoirs into natural gas storage fields. See sheets 23-26 for the locations of the proposed facilities.

In order to verify the characteristics of the existing reservoir compartments, CNYOG is currently drilling up to eight test wells. CNYOG received authorization from the U.S. Army Corps of Engineers (USACE) to drill these test wells on January 6, 2000 for 0.095 acre of wetland impact under NWP 26. The Federal Energy Regulatory Commission (FERC) determined that development of the test wells was exempt from FERC regulations. CNYOG receives authorization from the New York State Department of Environmental Conservation (NYSDEC) on a well by well basis. CNYOG proposes to drill up to 18 additional storage wells (in addition to the 8 test wells) for a total of up to 26 wells if necessary to achieve its performance objectives, although CNYOG believes that it will require less than 26 wells to achieve such objectives.

The storage field construction includes approximately 10 miles of gathering pipeline easement, approximately 4 miles containing two pipelines (12- and 20-inch diameter) and the remainder containing single lines ranging from 8-inch to 20-inch diameter pipeline. CNYOG also proposes to construct and operate an approximately 4.7 mile, 12-inch diameter fuel supply pipeline (the Twin Tier Lateral) from the Central Compression Facility to a proposed merchant generating facility (known as the Twin Tier Power Plant) located northwest of the storage field. Pig launchers and receivers, as well as isolating valves, would be constructed at several pipeline interconnection points.

CNYOG proposes to construct and operate a Central Compression Facility consisting of three electric powered compressors, filter separators, glycol dehydrators and a 250-300 kW diesel fueled emergency generator.

The applicant's stated purpose for the proposed storage facility is to offer high deliverability, multi-cycle storage services which will be tailored to the specific needs of individual customers at delivered prices that are competitive with those offered by other high deliverability storage projects. The Project would permit the more efficient use of pipeline capacity that moves gas generally from the south, west, and Canadian import points in New York to the major consumption centers in the New York Metropolitan area and in New England. The Project would support the expected growth in natural gas demand to support the expansion of gas-fired electric generating capacity in the Northeast and would provide a ready supply of natural gas for Northeast domestic and commercial energy markets. CNYOG also anticipates that the Project will provide an essential infrastructure asset necessary for the eventual distribution of natural gas service to consumers in the vicinity of the Project who may not currently receive natural gas service.

The Federal Energy Regulatory Commission (FERC) is the lead Federal agency responsible for evaluating applications filed for authority to construct and operate interstate natural gas facilities under Section 7(c) of the Natural Gas Act. An Environmental Assessment was prepared by the FERC to satisfy the requirements of the National Environmental Policy Act. Public meetings were held to obtain comments on the proposed action and comments were solicited through public notice. The Environmental Assessment concludes that construction of the Stagecoach Storage and Expansion Project and the Stagecoach Lateral Pipeline, with appropriate mitigation measures, would not constitute a major Federal action significantly affecting the quality of the environment. FERC is reviewing these projects under Docket Nos. CP00-063-000 and CP00-065-000. The Environmental Assessment, published on September 12, 2000, as well as the application and other supplemental filings in this docket, are available for viewing on the FERC web site at http://www.ferc.fed.us. (Click on the 'RIMS' link, select 'Docket #' from the RIMS menu, and follow the instructions.)

PROJECT CONSTRUCTION IMPACTS

The Stagecoach Lateral Pipeline would be constructed on new right-of-way that traverses a rural area. Construction right-of-way would generally be 100-feet-wide, except in wetlands and streams where the construction right-of-way will be 75 feet. Following construction, permanent right-of-way would be 50-feet-wide. During construction extra workspace may be required in agricultural lands, and at stream, wetland, road, and railroad crossings. However, the extra work space needed for stream and wetland crossings would be set back at least 50 feet from the stream and/or wetland areas to minimize disturbance to these areas. The total land required for construction would be approximately 385 acres, about 144 of which would become permanent right-of-way.

The total land area required for construction of the Stagecoach Storage Project would be approximately 302.6 acres. Approximately 151.5 acres would be maintained for permanent pipeline right-of-way, the Central Compressor Station, access roads, and associated facilities. Current land use consists predominantly of a mix of forest and agricultural land.

STREAM CROSSINGS

The Stagecoach Lateral Pipeline would cross 46 intermittent and 16 perennial streams and a temporary equipment bridge would be needed to cross 1 perennial stream. None of the streams are classified as special protection or high quality waters. The stream crossing locations are shown on the project location maps and the names, sizes, classifications, and stream crossing methods for each stream crossing are shown in sheets 9-14. Dry crossing techniques would be used to construct the pipeline across all streams flowing at the time of construction. Streams that are not flowing during construction would be crossed using the open-cut method (sheets 15-17). Spoil would not be stockpiled in streams and would be stored a minimum of 10 feet from the top of stream banks. Existing vegetation will be left in place to the extent possible, and grading of stream banks would not occur until the time of stream crossing construction. Stream banks would be stabilized and permanent sediment barriers installed immediately upon completing the crossing, weather permitting. Equipment bridges would remain in place across the streams until the completion of final restoration.

The Stagecoach Storage Project would cross 14 intermittent streams and 10 drainage swales. Sheet 33 shows the list of streams crossed and the classification for each stream. Techniques as described in the previous paragraph for construction of the Stagecoach Lateral Pipeline will be utilized.

WETLAND CROSSINGS

The Stagecoach Lateral Pipeline would cross 27 wetlands and impact about 4.85 acres during construction, of which 2.58 acres would be located in Tennessee's permanent 50-foot wide right-of-way. The wetland crossing locations are shown on project location

maps, and the classification and impacts are presented in sheets 18-20. Forested wetlands (0.27 acre) will be converted to scrub-shrub and emergent wetland in the permanently maintained right-of-way.

The Stagecoach Storage Project would cross 27 wetlands and impact about 6.15 acres of wetlands during construction, of which 1.54 acres would be located in CNYOG's permanent well site or access road areas. The wetland crossing locations are shown on sheets 30-32, and the classification and impacts are presented on sheet 34.

Pipeline construction for the Lateral pipeline (sheets 21-22) and the Storage Project will be as follows: In wetland areas topsoil will be stripped and stockpiled separately from subsoil. If the wetland areas are saturated at the time of construction then equipment will work off timber/corduroy mats. Stumps and vegetation will be left in place to the extent possible to promote revegetation with native species. All felled trees would be removed from the wetland. The applicant intends to restore temporary wetland crossings to preconstruction contours, backfilling with native soils and allowing revegetation with native species. Disturbed areas would be reseeded, or stabilized by methods approved in the Erosion and Control Plan, with annual ryegrass, and no fertilizer or lime would be used. Tennessee and CNYOG would monitor the success of revegetation annually. During pipeline operation, Tennessee and CNYOG would maintain a 10-foot-wide corridor in a herbaceous state. Trees and shrubs will be allowed to grow within 15 feet of the pipeline centerline and to 15 feet in height, and the right-of-way would not be mowed more frequently than every 3 years. For the storage project, the temporary disturbance areas adjacent to permanent wells and access roads will be allowed to naturally revegetate.

At this time, CNYOG has not provided a mitigation plan to compensate for proposed permanent impacts.

ADMINISTRATIVE DETAILS

All work for these two projects is to be completed in accordance with the enclosed plan(s). If you have any questions concerning the Stagecoach Storage Project please contact Margaret A. Crawford by calling (315) 255-8090, or e-mail at: **margaret.a.crawford@usace.army.mil.**

Questions pertaining to the Stagecoach Lateral Pipeline should be directed to Michael Dombroskie by calling (814) 235-0571, or by e-mail at: **mike.dombroskie@usace.army.mil.**

The following additional authorization(s) may be required for this project:

Water Quality Certification (or waiver thereof) from the New York State Department of Environmental Conservation and the Pennsylvania Department of Environmental Protection.

In addition, the applicant is required to obtain two National Pollution Discharge Elimination System Permits: one for construction stormwater discharges and one for hydrostatic test water discharges. The applicant is also required to obtain an underground Storage Permit and Well Drilling Permits from the NYSDEC.

There are no registered historic properties or properties listed as being eligible for inclusion in the National Register of Historic Places that will be affected by these projects.

In addition, available evidence indicates that the proposed work will not affect a species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the critical habitat of any such species.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 PM on the expiration date of this notice.

Comments for the Stagecoach Storage Project should be sent to the U. S. Army Corps of Engineers, 7413 County House Road, Auburn, New York 13021, and should be marked to the attention of Margaret A. Crawford, or by e-mail at: margaret.a.crawford@usace.army.mil.

Comments for the Stagecoach Lateral Pipeline should be sent to the U.S. Army Corps of Engineers, Baltimore District, State College Field Office, 1631 South Atherton Street, State College, Pennsylvania 16801, and marked to the attention of Michael Dombroskie, or by e-mail at: mike.dombroskie@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross-examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the

Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

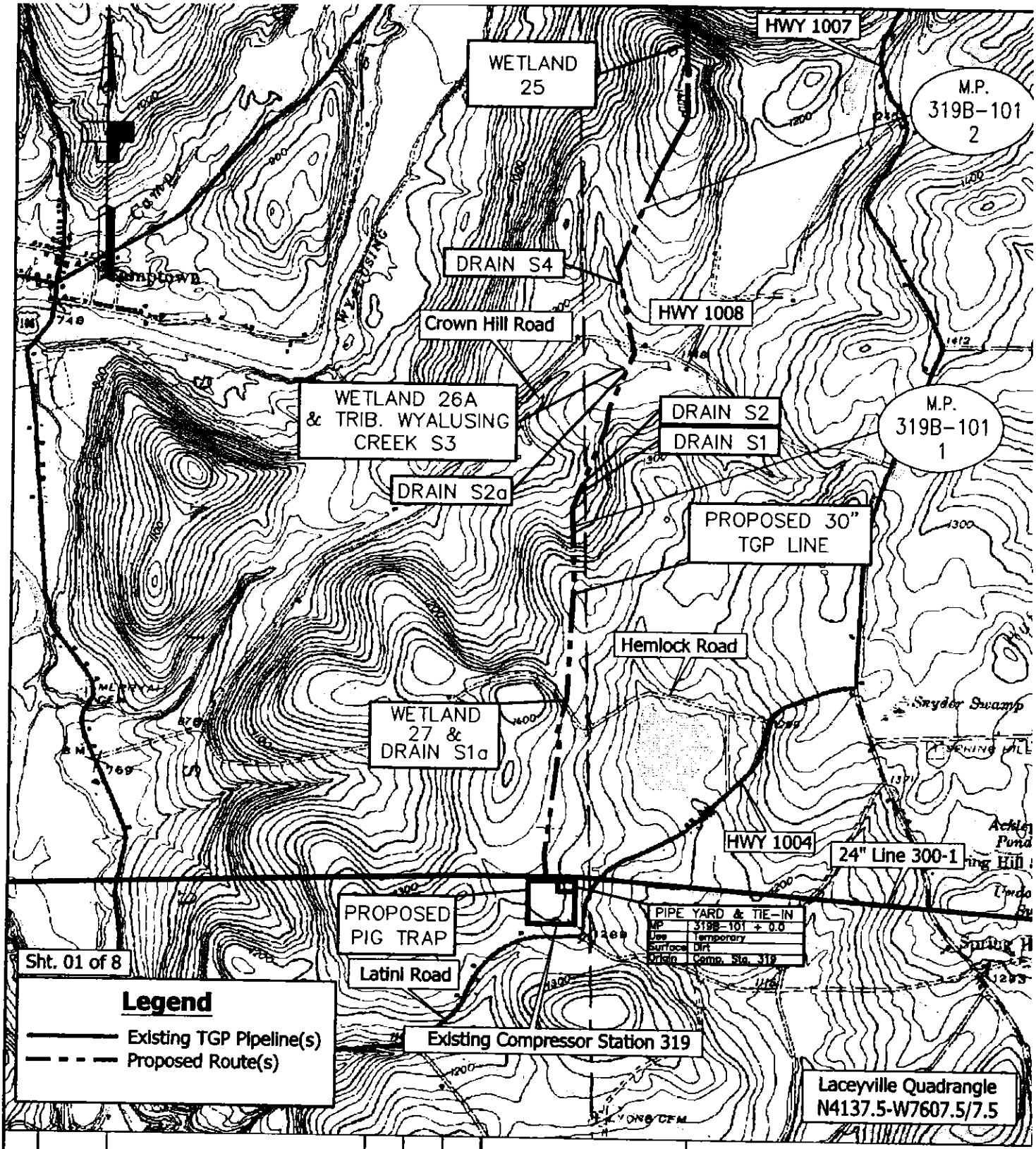
The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

for Paul G. Leuchner
Chief, Regulatory Branch
Buffalo District

Irwin Garskof
Chief, Pennsylvania Section
Baltimore District

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.



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DISC. ENGR.	DATE
PROJ. ENGR.	DATE
OPER. APPR.	DATE
SCALE: 1"=2000'	F.B.
PROJECT ID: 013795	

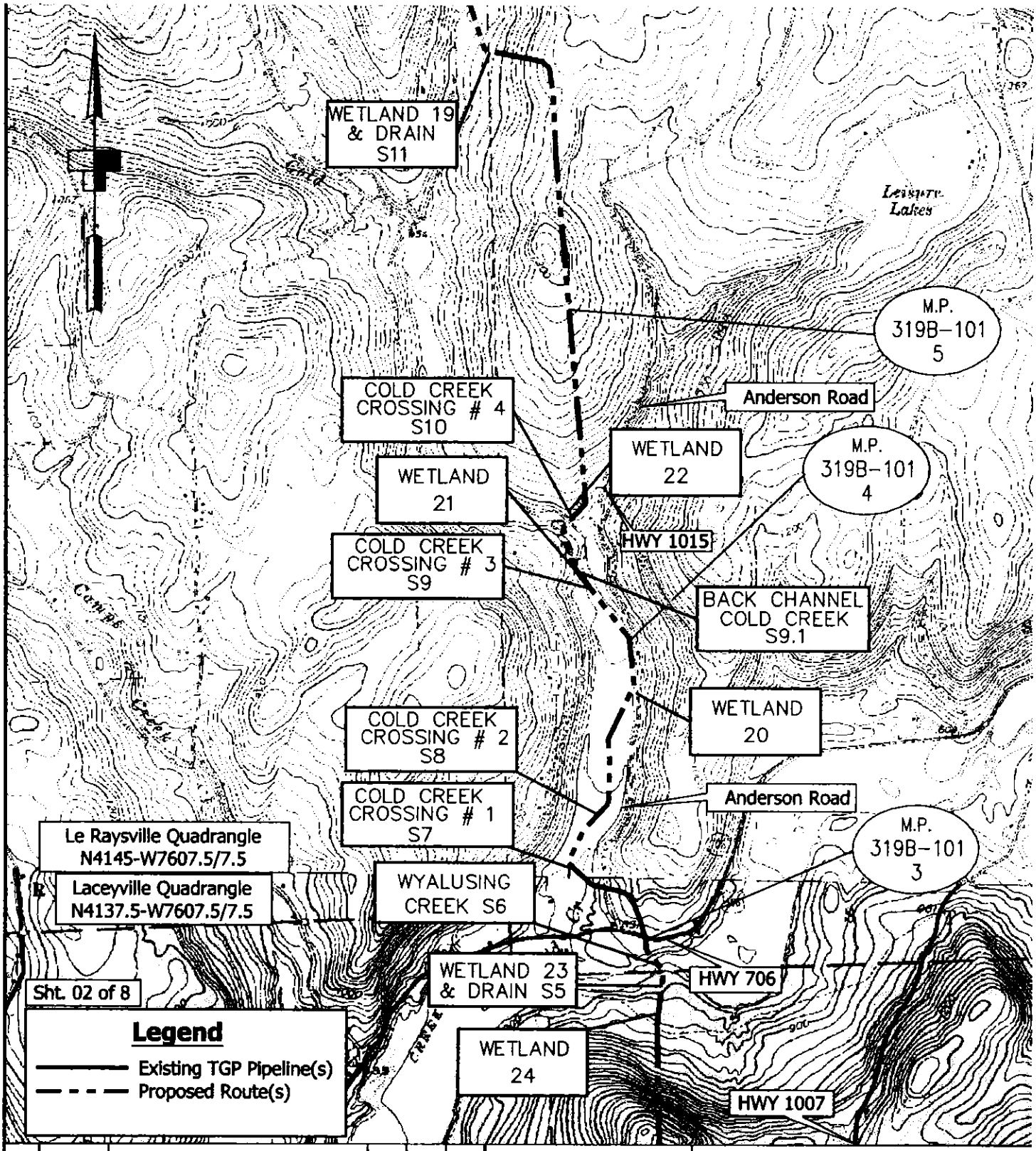
TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 1 of 34

STAGECOACH EXPANSION PROJECT
30" PROPOSED LATERAL
LACEYVILLE, PENNSYLVANIA

Tennessee Gas Pipeline Co.

TA-X10-319B-100-1A



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DISC. ENGR.	DATE
PROJ. ENGR.	DATE
OPER. APPR.	DATE
SCALE: 1"=2000'	F.B.
PROJECT ID: 013795	

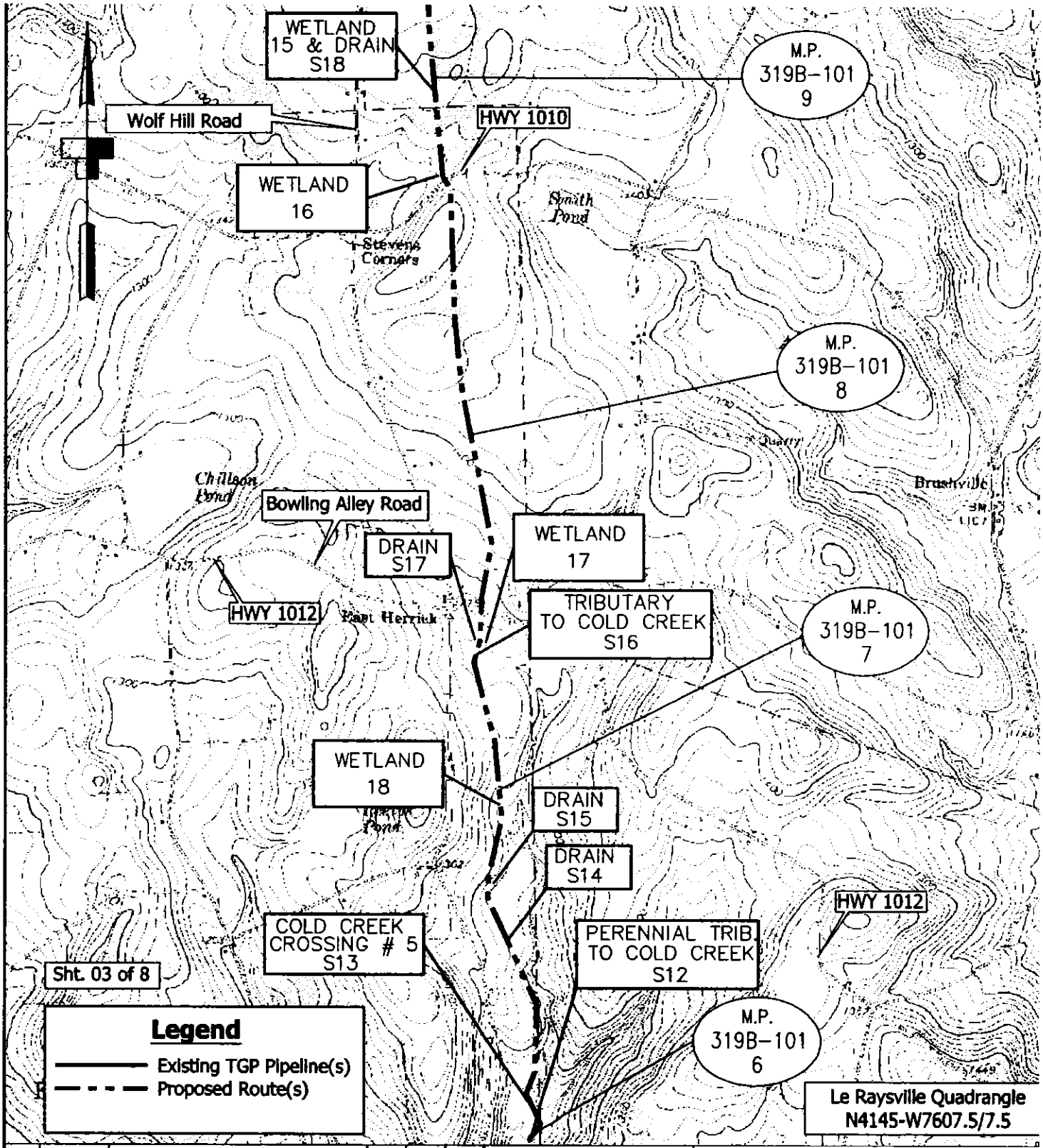
TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 2 of 34

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LE RAYSVILLE, PENNSYLVANIA

Tennessee Gas Pipeline Co

TA-X10-319B-100-2



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PROJECT ID: 013795	

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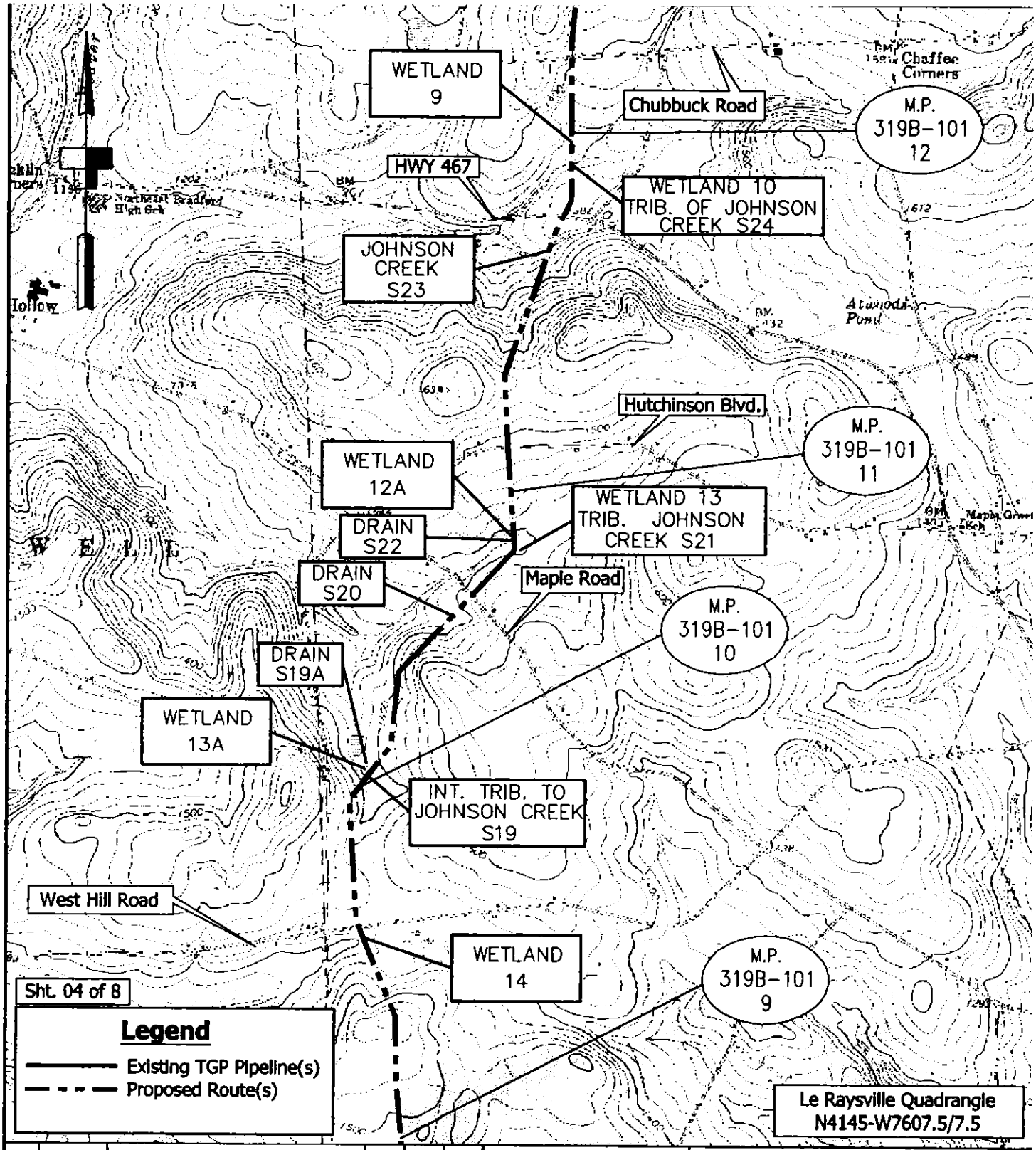
Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 3 of 34

TENNESSEE GAS PIPELINE
an El Paso Energy company

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LE RAYSVILLE, PENNSYLVANIA

Tennessee Gas Pipeline Co.

TA-X10-319B-100-3A



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Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 4 of 34

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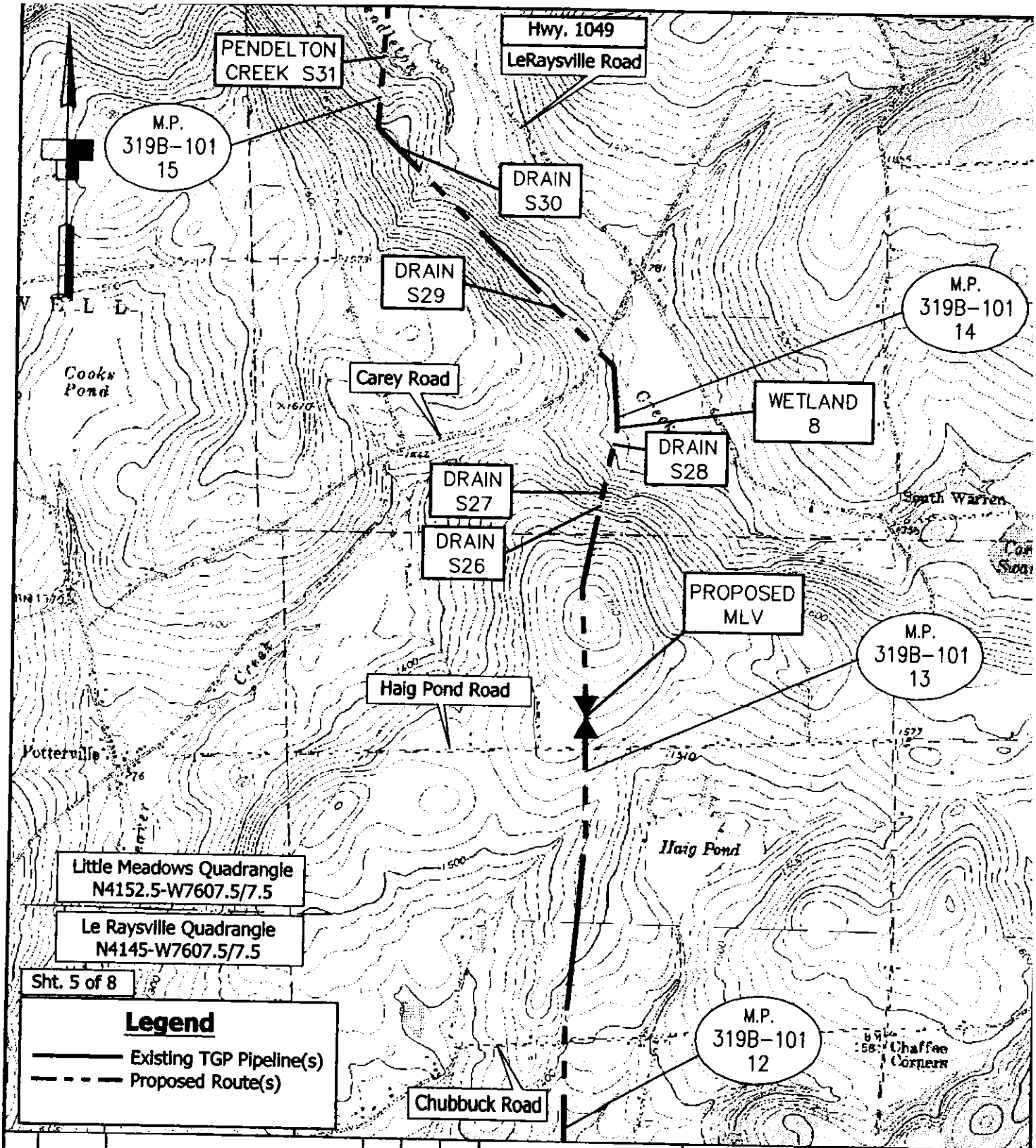
PROJECT ID: 013795	

TENNESSEE GAS PIPELINE
an El Paso Energy company

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LE RAYSVILLE, PENNSYLVANIA

Tennessee Gas Pipeline Co

TA-X10-319B-100-4A



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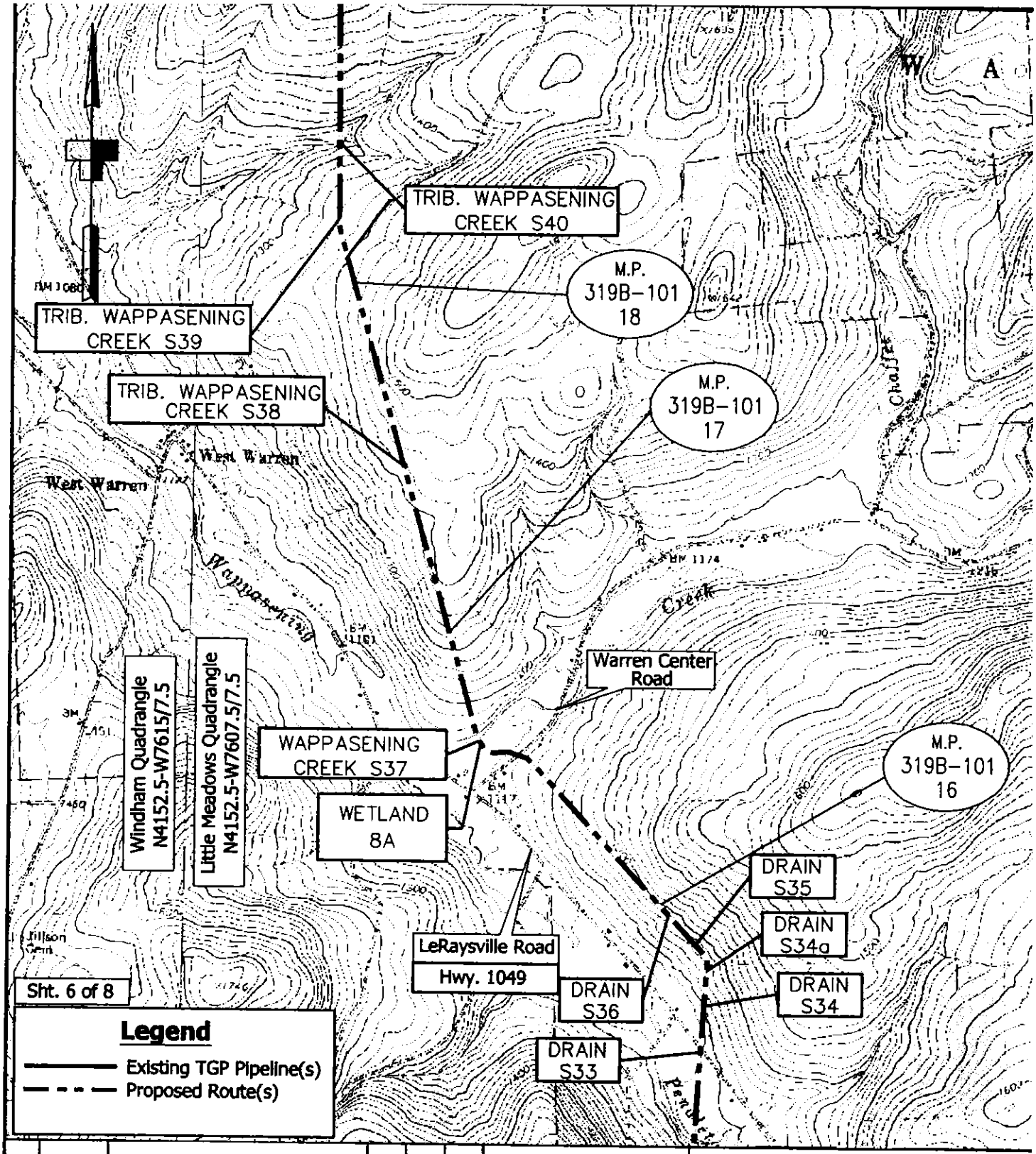
TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 5 of 34

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LE RAYSVILLE & LITTLE MEADOWS, PA.

Tennessee Gas Pipeline Co.

TA-X10-319B-100-5A



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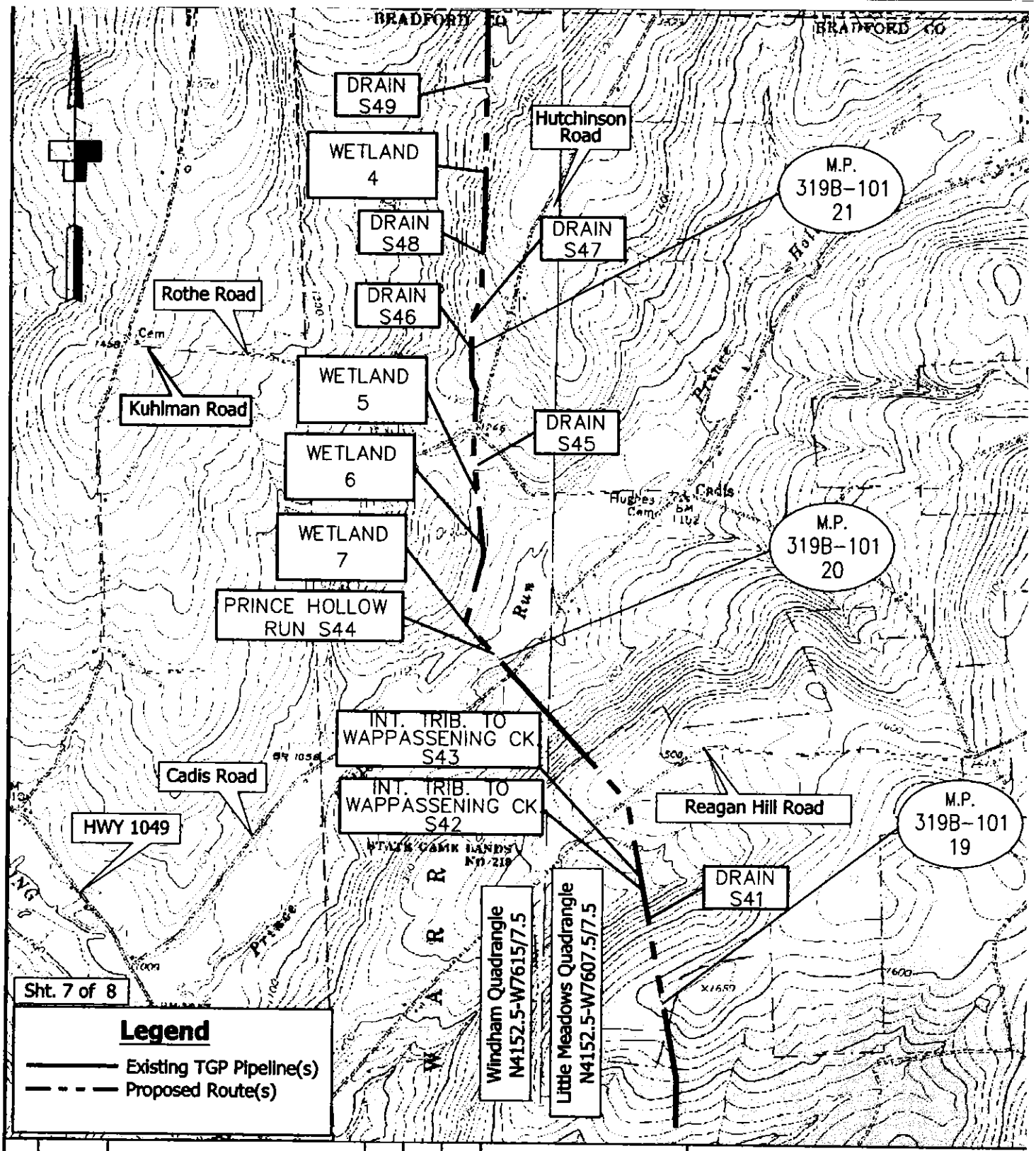
TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 6 of 34

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LITTLE MEADOWS, PA. - N.Y.

Tennessee Gas Pipeline Co.

TA-X10-319B-100-6A



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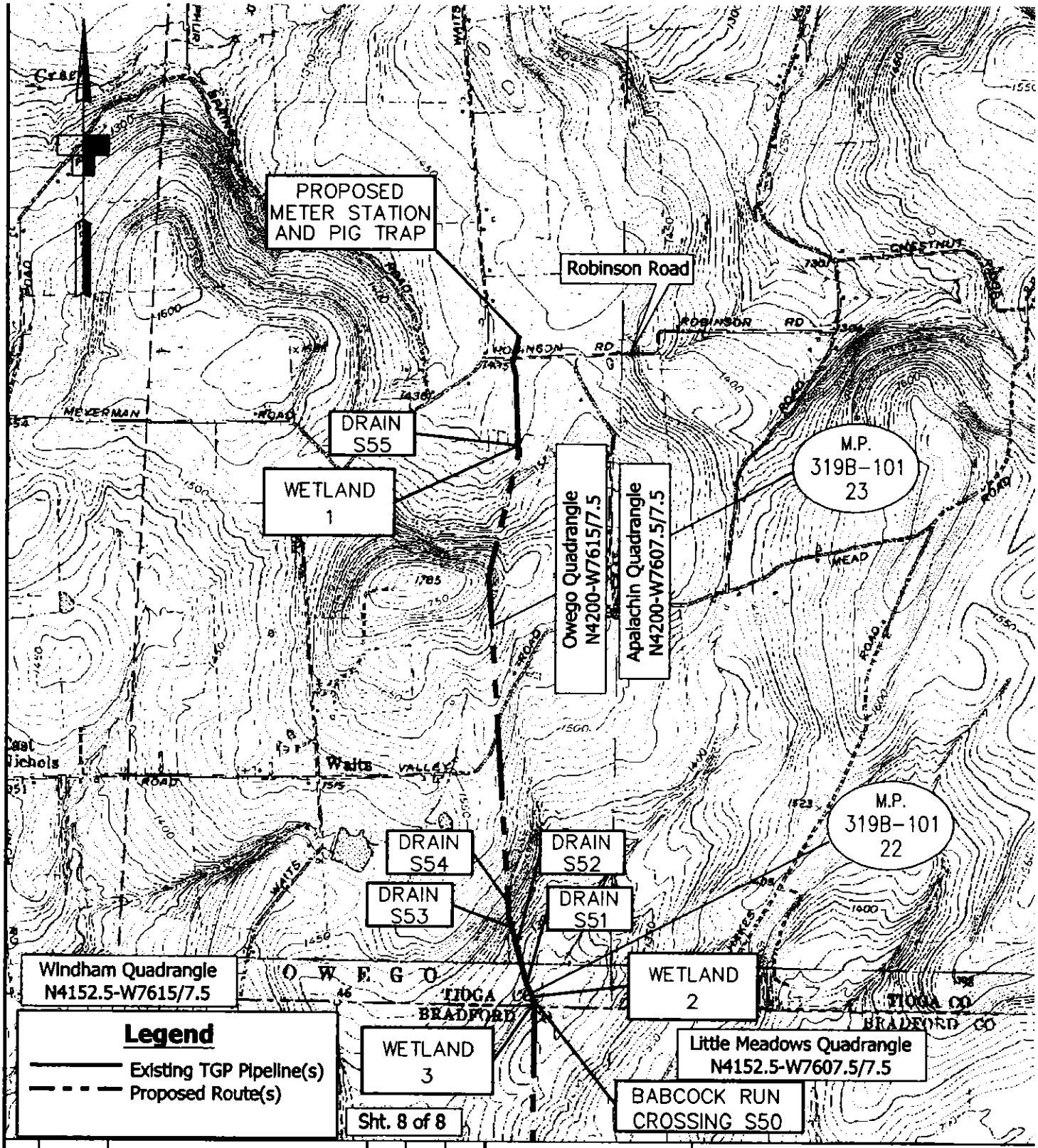
TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 7 of 34

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
LITTLE MEADOWS & WINDHAM, PA.- N.Y.

Tennessee Gas Pipeline Co

TA-X10-319B-100-7A



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REFERENCE DRAWINGS

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Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 8 of 34

TENNESSEE GAS PIPELINE
an El Paso Energy company

STAGECOACH EXPANSION PROJECT
PROPOSED 30" LATERAL
OWEGO, N.Y.

Tennessee Gas Pipeline Co

TA-X10-319B-100-8A

TABLE 1 (Revised 10-24-00)

Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude
Bradford, PA	0.6	S1a	Drain to Wyalusing Creek (T)	I	3	WWF	1 or 2A	41o 42' 53" 76o 12' 34"
Bradford, PA	1.1	S1	Drain to Wyalusing Creek (T)	I	2	WWF	1 or 2A	41o 43' 24" 76o 12' 36"
Bradford, PA	.1	S2	Drain to Wyalusing Creek (T)	I	2	WWF	1 or 2A	41o 43' 25" 76o 12' 37"
Bradford, PA	1.3	S2a	Drain to Wyalusing Creek (T)	I	6	WWF	1 or 2A	41o 43' 55" 76o 12' 44"
Bradford, PA	1.4	S3	Wyalusing Creek (T)	P	6	WWF	2A	41o 43' 39" 76o 12' 49"
Bradford, PA	1.6	S4	Drain to Wyalusing Creek (T)	I	3	WWF	1 or 2A	41o 43' 52" 76o 12' 47"
Bradford, PA	2.8	S5	Drain to Wyalusing Creek (T)	I	10	WWF	1 or 2A	41o 44' 43" 76o 13' 0"
Bradford, PA	2.9	S6	Wyalusing Creek	P	125	WWF	2A	41o 44' 48" 76o 12' 59"
Bradford, PA	3.3	S7	Cold Creek 1	P	75	WWF	2A	41o 45' 01" 76o 12' 25"
Bradford, PA	3.5	S8	Cold Creek 2	P	75	WWF	2A	41o 45' 09" 76o 12' 20"
Bradford, PA	4.1	S9	Cold Creek 3	P	40	WWF	2A	41o 45' 43" 76o 12' 23"
Bradford, PA	4.2	S9.1	Back Channel of Cold Creek (T)	I	25	WWF	1 or 2A	41o 45' 44" 76o 12' 25"
Bradford, PA	4.4	S10	Cold Creek 4	P	40	WWF	2A	41o 45' 51" 76o 12' 27"
Bradford, PA	5.9	S11	Drain to Cold Creek	I	5	WWF	1 or 2A	41o 46' 59" 76o 12' 45"

TABLE 1 (Revised 10-24-00)

Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude
Bradford, PA	5.9	S12	Cold Creek (T)	P	20	WWF	2A	41o 47' 01" 76o 12' 46"
Bradford, PA	6.0	S13	Cold Creek 5	P	18	WWF	2A	41o 47' 08" 76o 12' 46"
Bradford, PA	6.5	S14	Drain to Cold Creek	I	4	WWF	1 or 2A	41o 47' 32" 76o 12' 53"
Bradford, PA	6.6	S15	Drain to Cold Creek	I	8	WWF	1 or 2A	41o 47' 36" 76o 12' 56"
Bradford, PA	7.4	S16	Cold Creek (T)	I	9	WWF	1 or 2A	41o 48' 11" 76o 12' 58"
Bradford, PA	7.4	S17	Drain to Cold Creek	I	3	WWF	1 or 2A	41o 48' 13" 76o 12' 57"
Bradford, PA	8.9	S18	Drain to Johnson Creek (T)	I	3	WWF	1 or 2A	41o 49' 35" 76o 13' 07"
Bradford, PA	10.0	S19a	Drain to Johnson Creek (T)	I	4	WWF	1 or 2A	41o 50' 28" 76o 13' 17"
Bradford, PA	10.0	S19	Johnson Creek (T)	I	10	CWF	1 or 2A	41o 50' 29" 76o 13' 15"
Bradford, PA	10.1	S20	Drain to Johnson Creek (T)	I	3	CWF	1 or 2A	41o 50' 31" 76o 13' 12"
Bradford, PA	10.5	S21	Drain to Johnson Creek (T)	I	20	CWF	1 or 2A	41o 50' 50" 76o 13' 01"
Bradford, PA	10.8	S22	Johnson Creek (T)	P	25	CWF	2A	41o 51' 02" 76o 12' 46"
Bradford, PA	11.7	S23	Johnson Creek	P	30	CWF	2A	41o 51' 45" 76o 12' 42"
Bradford, PA	12.0	S24	Johnson Creek (T)	P	25	CWF	2A	41o 51' 47" 76o 12' 38"

TABLE 1 (Revised 10-24-00)

Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude
Bradford, PA	12.0	S25a	Drain to Johnson Creek (T)	I	6	CWF	1 or 2A	41o51'59" 76o12'40"
Bradford, PA	12.0	S25b	Drain to Johnson Creek (T)	I	6	CWF	1 or 2A	41o52'00" 76o12'40"
Bradford, PA	13.8	S26	Drain to Pendelton Creek	I	6	CWF	1 or 2A	41o 53' 36" 76o 12' 35"
Bradford, PA	13.8	S27	Drain to Pendelton Creek	I	6	CWF	1 or 2A	41o 53' 37" 76o 12' 35"
Bradford, PA	13.9	S28	Drain to Pendelton Creek	I	50	CWF	1 or 2A	41o 53' 42" 76o 12' 34"
Bradford, PA	14.5	S29	Drain to Pendelton Creek	I	30	CWF	1 or 2A	41o 54' 05" 76o 12' 52"
Bradford, PA	4.8	S30	Drain to Pendelton Creek	I	35	CWF	1 or 2A	41o 54' 18" 76o 13' 11"
Bradford, PA	15.2	S31	Pendelton Creek	P	35	CWF	2A	41o 54' 36" 76o 13' 21"
Bradford, PA	15.6	S33	Drain to Pendelton Creek	I	30	CWF	1 or 2A	41o 54' 55" 76o 13' 21"
Bradford, PA	15.7	S34	Drain to Pendelton Creek	I	50	CWF	1 or 2A	41o 54' 58" 76o 13' 21"
Bradford, PA	15.7	S34a	Drain to Pendelton Creek	I	4	CWF	1 or 2A	41o 55' 01" 76o 13' 21"
Bradford, PA	15.9	S35	Drain to Pendelton Creek	I	6	CWF	1 or 2A	41o 55' 05" 76o 13' 26"
Bradford, PA	16	S36	Drain to Pendelton Creek	I	6	CWF	1 or 2A	41o 55' 08" 76o 13' 29"
Bradford, PA	16.6	S37	Wappasening Creek	P	110	CWF	2A	41o 55' 32" 76o 14' 02"

TABLE 1 (Revised 10-24-00)

Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude
Bradford, PA	17.4	S38	Wappasening Creek (T)	I	15	CWF	1 or 2A	41o 56' 11" 76o 14' 18"
Bradford, PA	18.1	S39	Wappasening Creek (T)	I	6	CWF	1 or 2A	41o 56' 46" 76o 14' 32"
Bradford, PA	18.3	S40	Wappasening Creek (T)	P	35	CWF	2A	41o 56' 58" 76o 14' 33"
Bradford, PA	19.2	S40a	Back channel to Wappesening Creek (T)	I	4	CWF	1 or 2A	41o56'59" 76o14'35"
Bradford, PA	19.2	S42	Wappasening Creek (T)	I	25	CWF	1 or 2A	41o 57' 46" 76o 14' 39"
Bradford, PA	19.3	S43	Wappasening Creek (T)	I	3	CWF	1 or 2A	41o 57' 50" 76o 14' 41"
Bradford, PA	19.3	S43a	Drain to Wappesening Creek (T)	I	3	CWF	1 or 2A	41o57'49" 76o14'48"
Bradford, PA	20.0	S44	Prince Hollow Run	P	30	CWF	2A	41o 58' 19" 76o 15' 08"
Bradford, PA	off line	S44a	Prince Hollow Run (along access rd N side Cadis Rd)	P	40/d	CWF	2A	41o 58' 28" 76o 15' 06"
Bradford, PA	20.6	S45	Drain (pond outfall)	I	2	CWF	1 or 2A	41o 58' 50" 76o 15' 16"
Bradford, PA	21.0	S46	Drain to Babcock Run	I	6	CWF	1 or 2A	41o 59' 06" 76o 15' 18"
Bradford, PA	21.1	S47	Drain to Babcock Run	I	6	CWF	1 or 2A	41o 59' 18" 76o 15' 18"
Bradford, PA	21.4	S48	Drain to Babcock Run	I	6	CWF	1 or 2A	41o 59' 28" 76o 15' 15"

TABLE 1 (Revised 10-24-00)

Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude
Bradford, PA	21.6	S49	Drain to Babcock Run	I	10	CWF	1 or 2A	41o 59' 42" 76o 15' 14"
Tioga, NY	21.9	S50	Babcock Run	P	25	C	2A	41o 59' 54" 76o 15' 14"
Tioga, NY	22.1	S51	Drain to Babcock Run	I	6	C	1 or 2A	42o 00' 05" 76o 15' 19"
Tioga, NY	22.1	S52	Drain to Babcock Run	I	6	C	1 or 2A	42o 00' 06" 76o 15' 20"
Tioga, NY	22.1	S53	Drain to Babcock Run	I	6	C	1 or 2A	42o 00' 09" 76o 15' 20"
Tioga, NY	22.2	S54	Drain to Babcock Run	I	6	C	1 or 2A	42o 00' 17" 76o 15' 24"
Tioga, NY	23.4	S55	Drain to Hunts Creek	I	4	C	1 or 2A	42o 01' 09" 76o 15' 21"
Tioga, NY	25.7	S56	Maintained Ditch; Drain to Hunts Creek	I	3	C	1 or 2A	42o01'15" 76o15'20"

Total: 17 Perennial and 46 Intermittent

Notes:
(T) = Tributary
a/ P = Perennial; I = Intermittent
b/ PA Water Quality Protected Use Classifications
CWF = Cold Water Fishes (includes Statewide Water Uses (SWU) that follow)
WWF = Warm Water Fishes (includes Statewide Water Uses)
SWU =Potable Water Supply, Industrial Water Supply, Livestock Water Supply, Wildlife Water Supply, Water Contact
MF = Migratory Fishes

TABLE 1 (Revised 10-24-00)

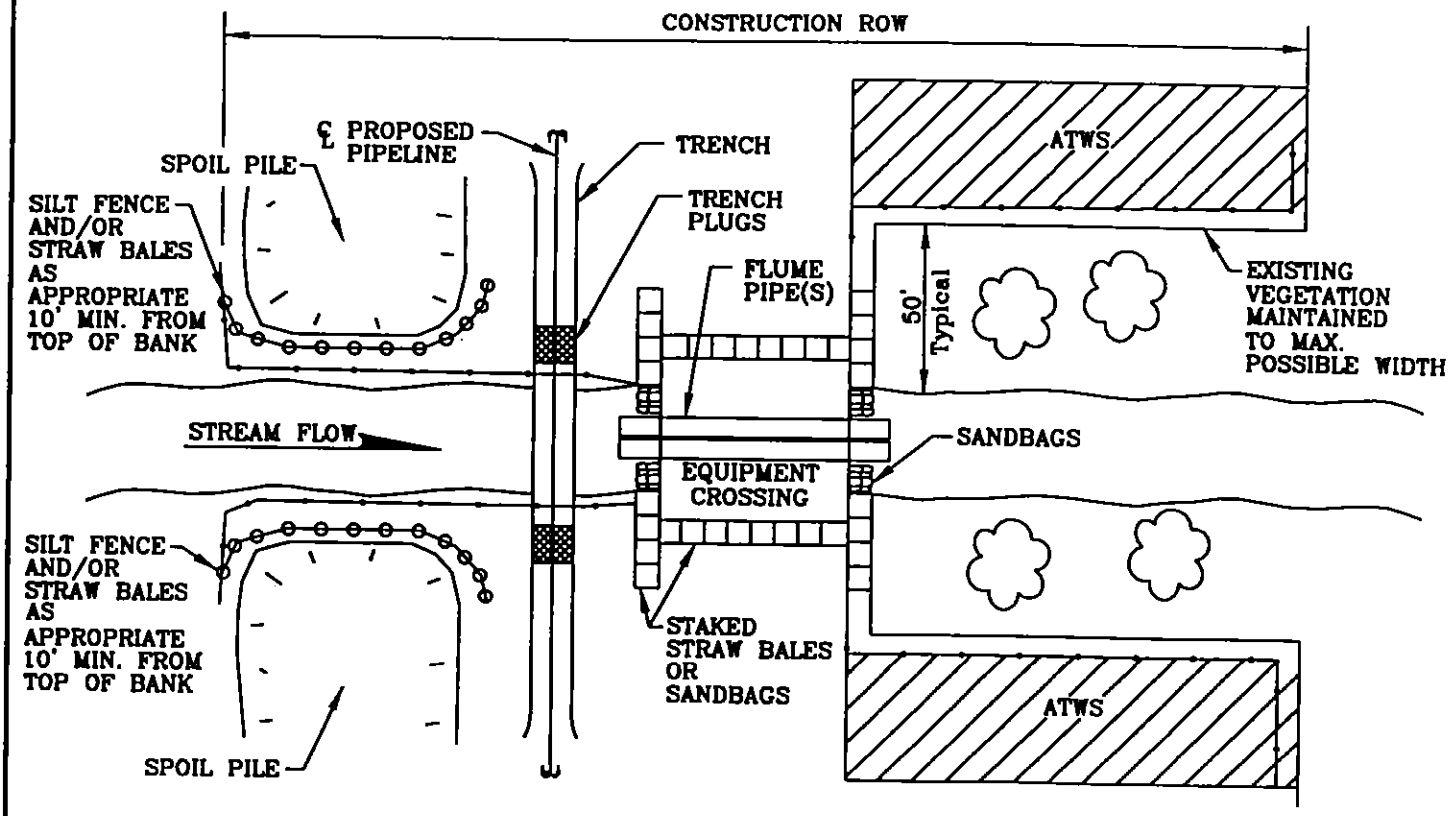
Waterbodies Crossed by the Stagecoach Expansion Project

County/State	Mile-post	Water-body Number	Waterbody	Type a/	Width (feet)	Classification Fishery Type b/	Construction Method c/	Latitude/ Longitude

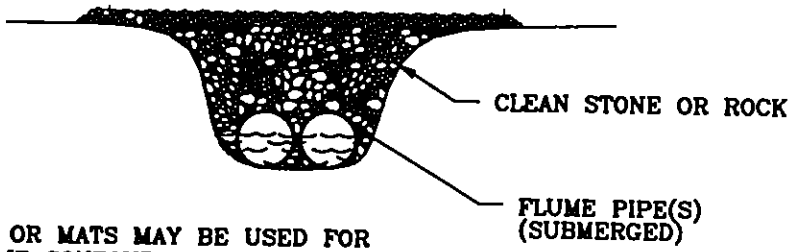
HQ = High Quality
Source: PADEP. 1997. Title 25. Environmental Protection. Ch. 93. Water Quality Standards.

NYS Surface Water Quality Classifications
Class C fresh surface waters = Waters suitable for fish propagation and survival, and primary and secondary contact recreation, although other factors may limit the use of these purposes.
Source: NYSDEP. 1994. Title 6. Chapter 10. Parts 700-705. Surface Water and Groundwater Classifications and Standards.

c/ Construction Method I refers to an open-cut or wet crossing, and 2A is a dry crossing using a flume.
d/ Impacted by workspace or access, not actual pipeline installation.



CROSS SECTION FOR EQUIPMENT CROSSING



NOTE:

1. PORTABLE BRIDGES OR MATS MAY BE USED FOR EQUIPMENT CROSSING IF CONTOURS ALLOW.
2. SPOIL PILES SHALL BE A MINIMUM OF 10 FEET FROM TOP OF BANK.
3. ADD. TEMP. WORKSPACE SHALL BE 50 FEET (TYPICAL) FROM TOP OF BANK.
4. EQUIPMENT BRIDGE TO REMAIN IN PLACE UNTIL THE COMPLETION OF FINAL RESTORATION.

NO.	DATE	REVISION	REV.	CKD.	APR.	File

DRAWING NO. REFERENCE TITLE

DRAWN: TGP	
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COORD.:	
SUPERVISOR: GAM	
DES. COORD.:	
DISC. ENG.:	
PROJ. ENG.:	
OPER. APPR.:	
SCALE: NONE	
PROJ. I.D.: 013795	

TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
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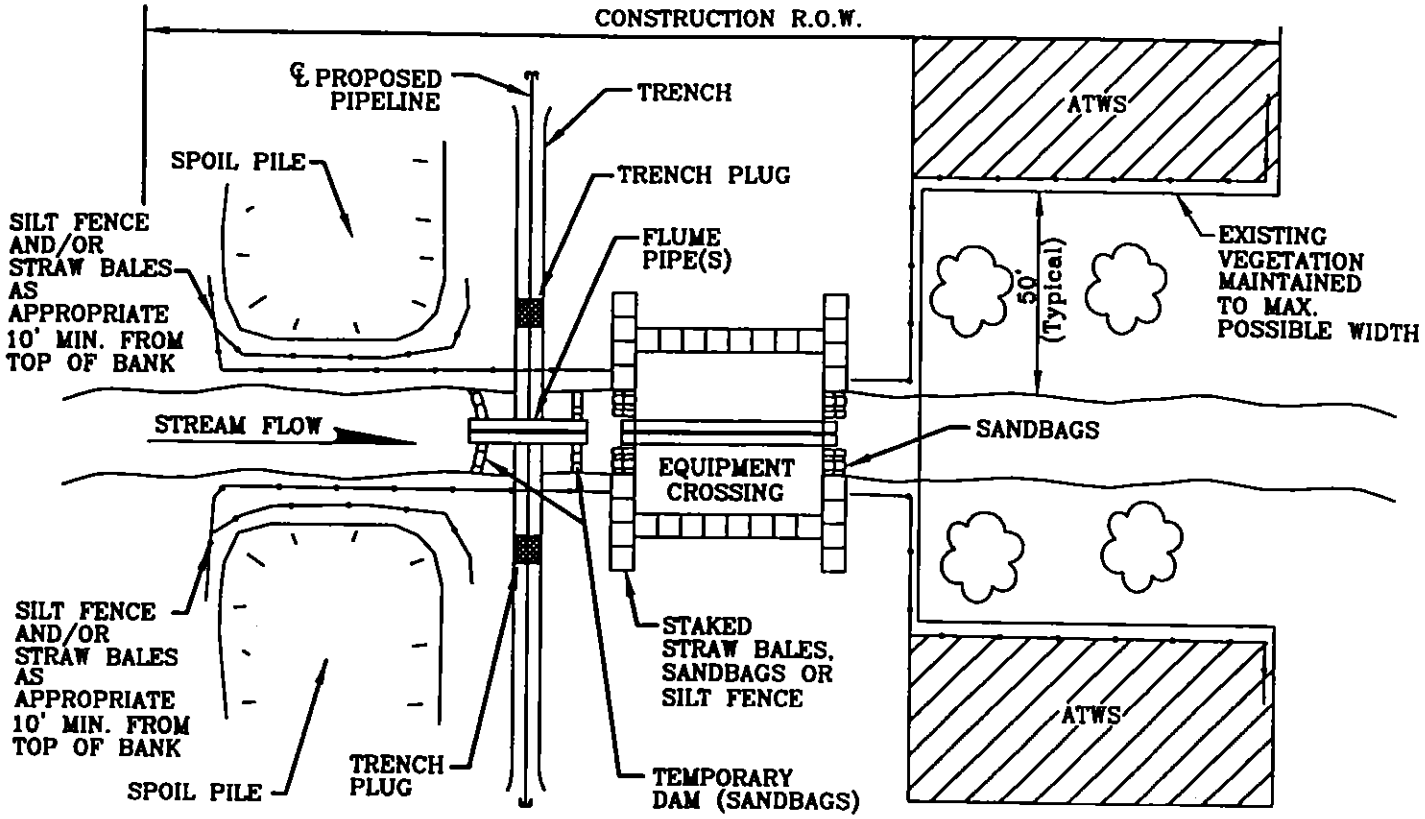
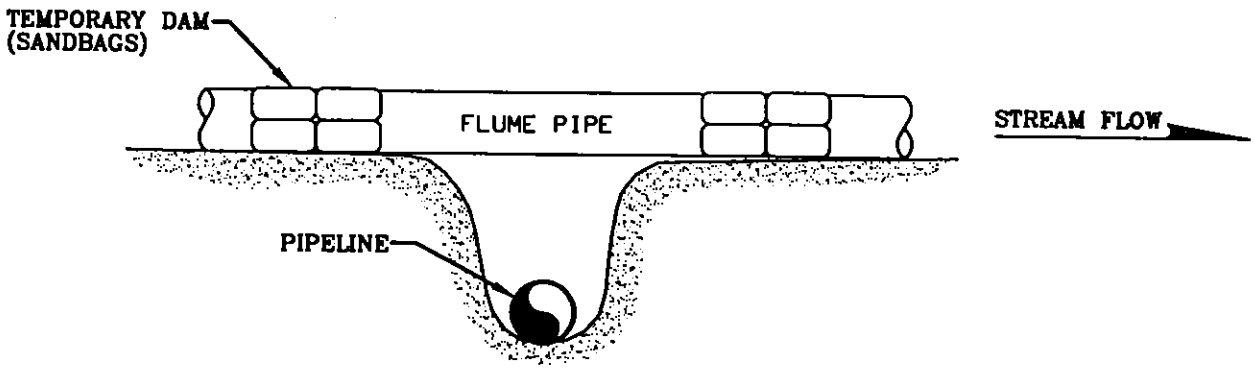
WET WATERBODY CROSSING (METHOD 1)

Tennessee Gas Pipeline Co.

FIGURE 5-9



CROSS SECTION FOR TRENCH FLUMING



NOTES:

1. SPOIL PILES SHALL BE 10 FEET FROM TOP OF BANK.
2. ADD. TEMP. WORKSPACE SHALL BE 50 FEET (TYPICAL) FROM TOP OF BANK.
3. EQUIPMENT BRIDGE SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF FINAL RESTORATION.

NO.	DATE	REVISION	REV.	CKD.	APR.

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TENNESSEE GAS PIPELINE
an El Paso Energy company

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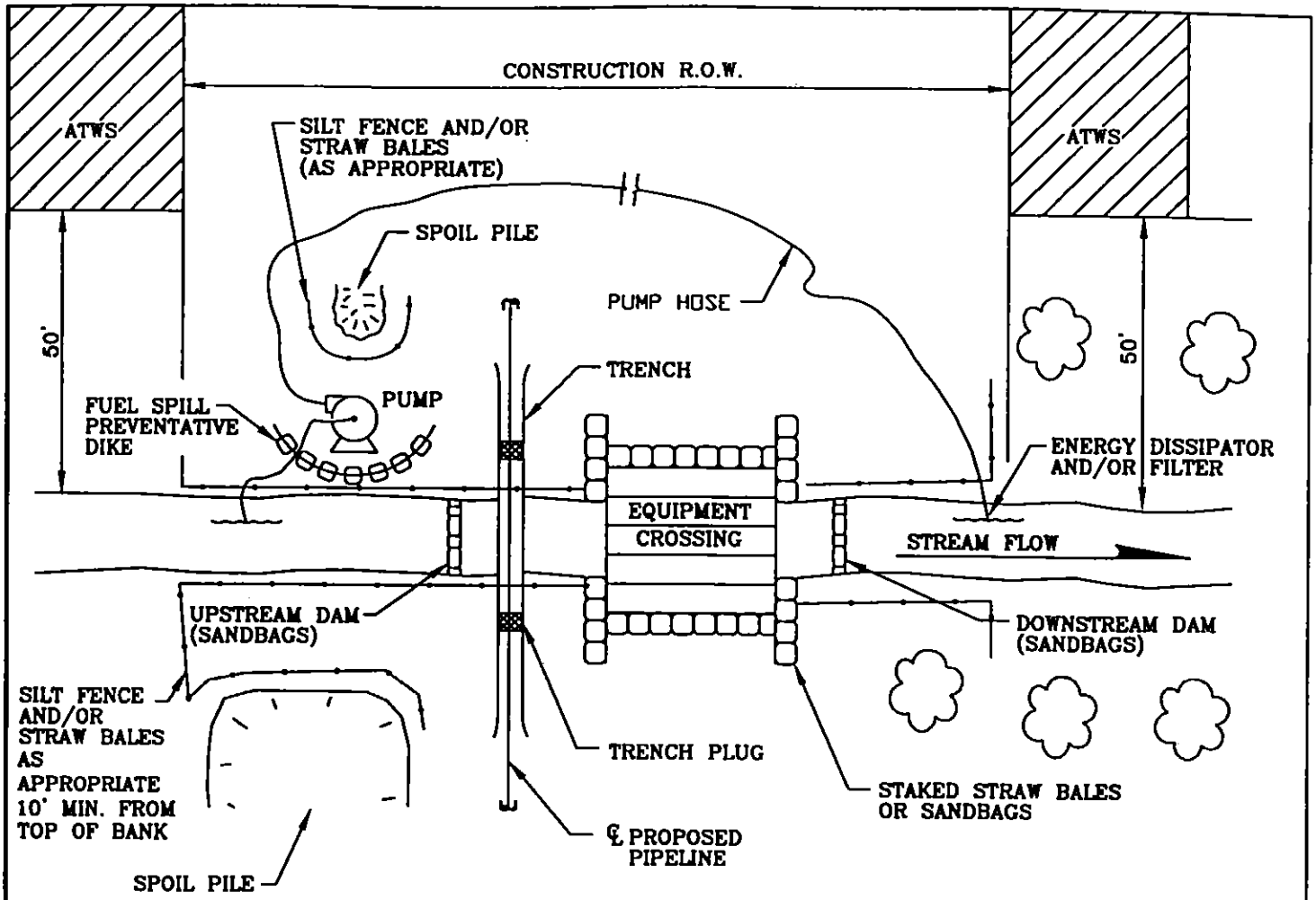
DRY WATERBODY CROSSING (METHOD 2A - FLUMED)

Tennessee Gas Pipeline Co.

FIGURE 5-10



PLAN

NOT TO SCALE

NOTES:

1. SET UP PUMP AND HOSE AS SHOWN, OR USE OTHER PRACTICAL ALTERNATIVES. PUMP SHOULD HAVE TWICE THE PUMPING CAPACITY OF ANTICIPATED FLOW.
2. CONTRACTOR TO ENSURE A SUFFICIENT NUMBER OF ACTIVE AND BACKUP PUMPS TO MAINTAIN THE CAPACITY OF THE STREAMFLOW AT ALL TIMES DURING INSTALLATION.
3. ALL INTAKE HOSES WILL BE SCREENED.
4. DISMANTLE DOWNSTREAM DAM, THEN UPSTREAM DAM. KEEP PUMP RUNNING TO MAINTAIN STREAM FLOW.

NO.	DATE	REVISION	REV.	CKD.	APR.

DRAWING NO. REFERENCE TITLE

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SUPERVISOR: GAM	
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PROJ. ENG.:	
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SCALE: NONE	
PROJ. I.D.: 013795	

TENNESSEE GAS PIPELINE
an El Paso Energy company

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DRY WATERBODY CROSSING (METHOD 2B, PUMP-AROUND)

Tennessee Gas Pipeline Co.

FIGURE 5-11

TABLE 2 (Revised 10-25-00)

Wetlands Crossed by the Stagecoach Expansion Project

County/ State	Wetland Number	Mile Post	NWI Classification a/	Photo Number	Length of Crossing (feet)	Temporary (acres)	Permanent (acres)	Construction (acres)	Latitude/ Longitude
Bradford, PA	W27	319B-101+0.6	PEM/PFO	14	344.0	0.31	0.28	0.59	41 42' 51" 76 12' 33"
Bradford, PA	W26A	319B-101+1.3	PEM		250.0	0.04	0.18	0.22	41 43' 37" 76 12' 47"
Bradford, PA	W25	319B-101+2.4	POW		28.5 (b)	0.01	0.00	0.01	41 44' 24" 76 13' 24"
Bradford, PA	W24	319B-101+2.7	PEM/PFO		156.0	0.08	0.01	0.09	41 44' 40" 76 12' 59"
Bradford, PA	W23	319B-101+2.8	PEM/PSS	12	94.0	0.02	0.07	0.09	41 44' 45" 76 13' 01"
Bradford, PA	W22	319B-101+4.4	PEM		35.0	0.01	0.00	0.01	41 45 '51" 76 12 '27"
Bradford, PA	W19	319B-101+5.8	PEM/PSS		266.8	0.09	0.19	0.28	41 46' 58" 76 12' 44"
Bradford, PA	W18	319B-101+6.9	PEM	11	562.5	0.34	0.30	0.64	41 47 '53" 76 12' 53"
Bradford, PA	W17	319B-101+7.4	PEM	10	101.7	0.08	0.05	0.13	41 48' 13" 76 12' 57"
Bradford, PA	W16	319B-101+8.7	PEM		162.9	0.21	0.01	0.22	41 49' 23" 76 13' 06"
Bradford, PA	W15	319B-101+8.9	PEM		107.4	0.03	0.08	0.11	41 49' 35" 76 13' 07"
Bradford, PA	W14	319B-101+9.5	PEM	9	65.6	0.03	0.07	0.10	41 50' 04" 76 13' 15"
Bradford, PA	W13A	319B-101+10.1	PEM		125.0	0.04	0.07	0.11	41 50' 30" 76 13' 15"
Bradford, PA	W12A	319B-101+10.9	PEM	8	30.0	0.01	0.01	0.02	41 51' 05" 76 12' 45"
Bradford, PA	W10	319B-101+11.9	PEM/PSS	7	67.6	0.04	0.03	0.07	41 51' 47" 76 12' 38"

TABLE 2 (Revised 10-25-00)

Wetlands Crossed by the Stagecoach Expansion Project

County/ State	Wetland Number	Mile Post	NWI Classification a/	Photo Number	Length of Crossing (feet)	Temporary (acres)	Permanent (acres)	Construction (acres)	Latitude/ Longitude
Bradford, PA	W09B	319B-101+12.0	PEM	7a,7b	145.0	0.08	0.17	0.25	41 52' 02" 76 12' 41"
Bradford, PA	W09	319B-101+12.0	PEM	6	140.0	0.08	0.16	0.24	41 52' 01" 76 12' 39"
Bradford, PA	W08	319B-101+14.0	PEM		68.2	0.08	0.05	0.13	41 53' 43" 76 12' 34"
Bradford, PA	W08A	319B-101+16.6	PEM		75.9	0.02	0.00	0.02	41 55' 32" 76 14' 02"
Bradford, PA	W07A	319B-101+18.6	PSS	5a	100.0	0.06	0.11	0.17	41 57' 18" 76 14' 38"
Bradford, PA	W07	319B-101+20.0	PSS	5	320.8	0.18	0.36	0.54	41 58' 19" 76 15' 08"
Bradford, PA	W06	319B-101+20.3	PEM		78.3 (b)	0.02	0.00	0.02	41 58' 35" 76 15' 13"
Bradford, PA	W05	319B-101+20.5	PEM		87.7	0.05	0.10	0.15	41 58 46" 76 15' 16"
Bradford, PA	W04	319B-101+21.5	PEM	4	38.3	0.04	0.04	0.08	41 59' 36" 76 15' 15"
Tioga, NY	W03	319B-101+21.9	PEM/PSS	3	117.5	0.01	0.01	0.02	41 59' 54" 76 15' 15"
Tioga, NY	W02	319B-101+22	PEM	2	43.0	0.02	0.04	0.06	42 00' 00" 76 15' 18"
Tioga, NY	W01	319B-101+23.4	PEM/PFO	1	300.7	0.29	0.19	0.48	42 01' 11" 76 15' 21"
Total						2.27	2.58	4.85	

a/ NWI Wetland Classification
PEM = Palustrine Emergent
PFO = Palustrine Forested

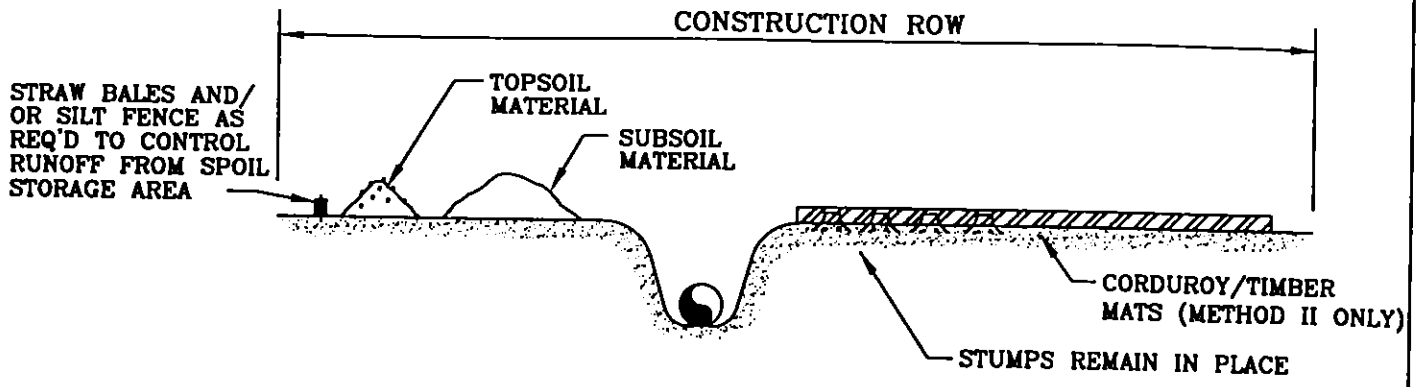
TABLE 2 (Revised 10-25-00)

Wetlands Crossed by the Stagecoach Expansion Project

County/ State	Wetland Number	Mile Post	NWI Classification a/	Photo Number	Length of Crossing (feet)	Temporary (acres)	Permanent (acres)	Construction (acres)	Latitude/ Longitude

PSS = Palustrine Scrub/Shrub
POW = Palustrine Open Water

b/ Impacted by workspace or access not actual pipeline construction.



NOTES:

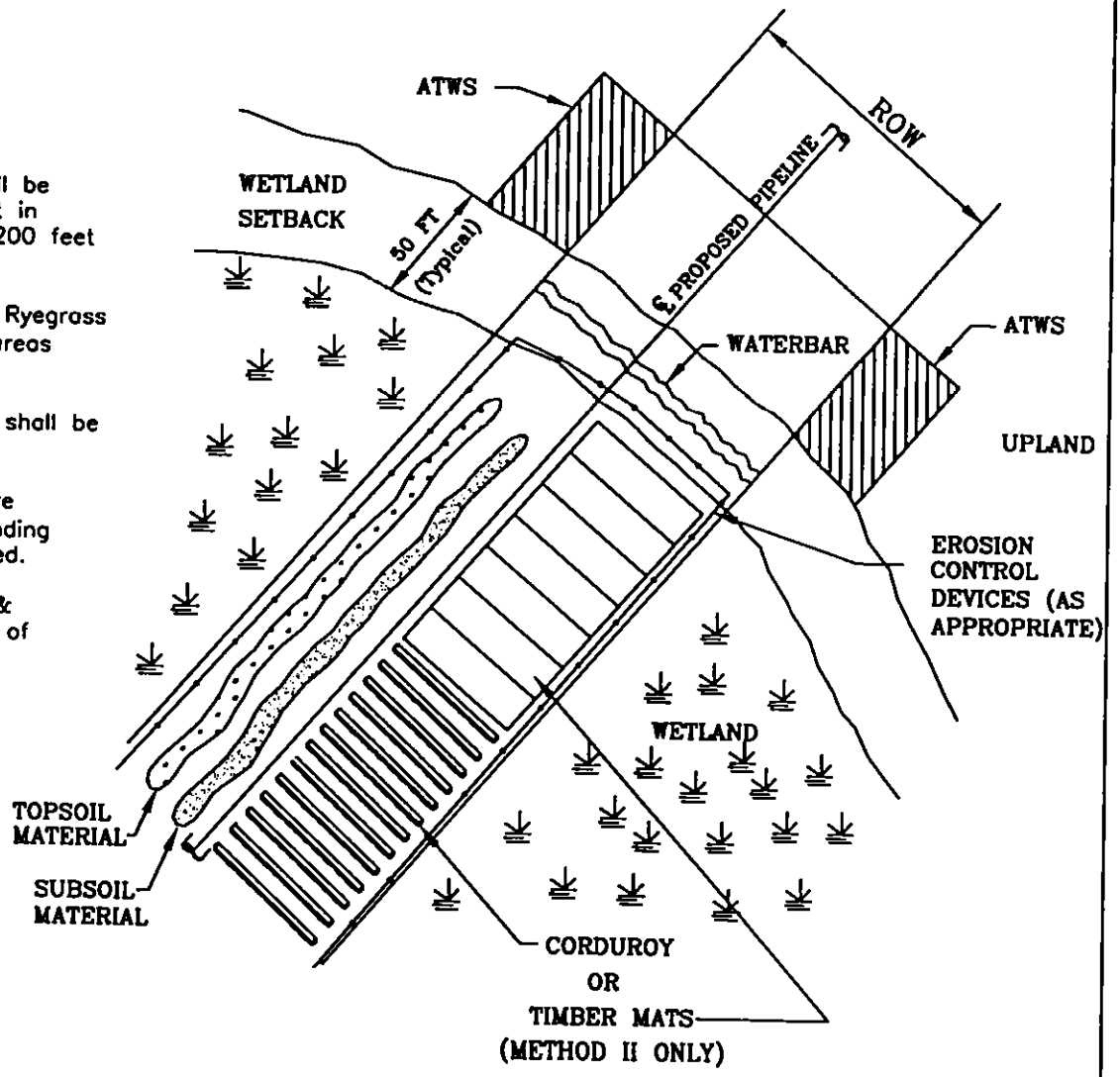
1. Trench breakers shall be installed every 100 feet in wetlands greater than 200 feet long.

2. Re-seed w/ Annual Ryegrass @ 40 Lbs/Acre in all areas w/o standing water.

3. No fertilizer or lime shall be used.

4. Mulch at 3 Tons/Acre (Seeded areas only) Binding Agents shall not be used.

5. Install trench plugs & waterbar on both sides of wetland.



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TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
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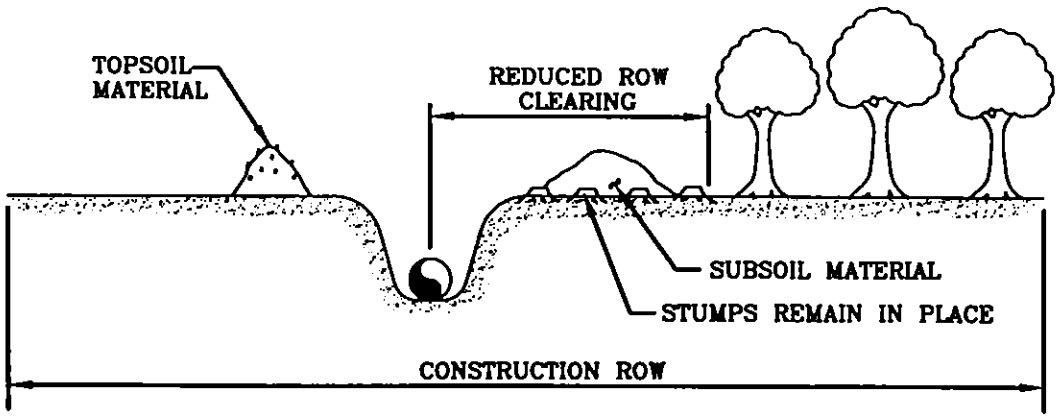
CONVENTIONAL WETLAND CONSTRUCTION (METHOD I & II)

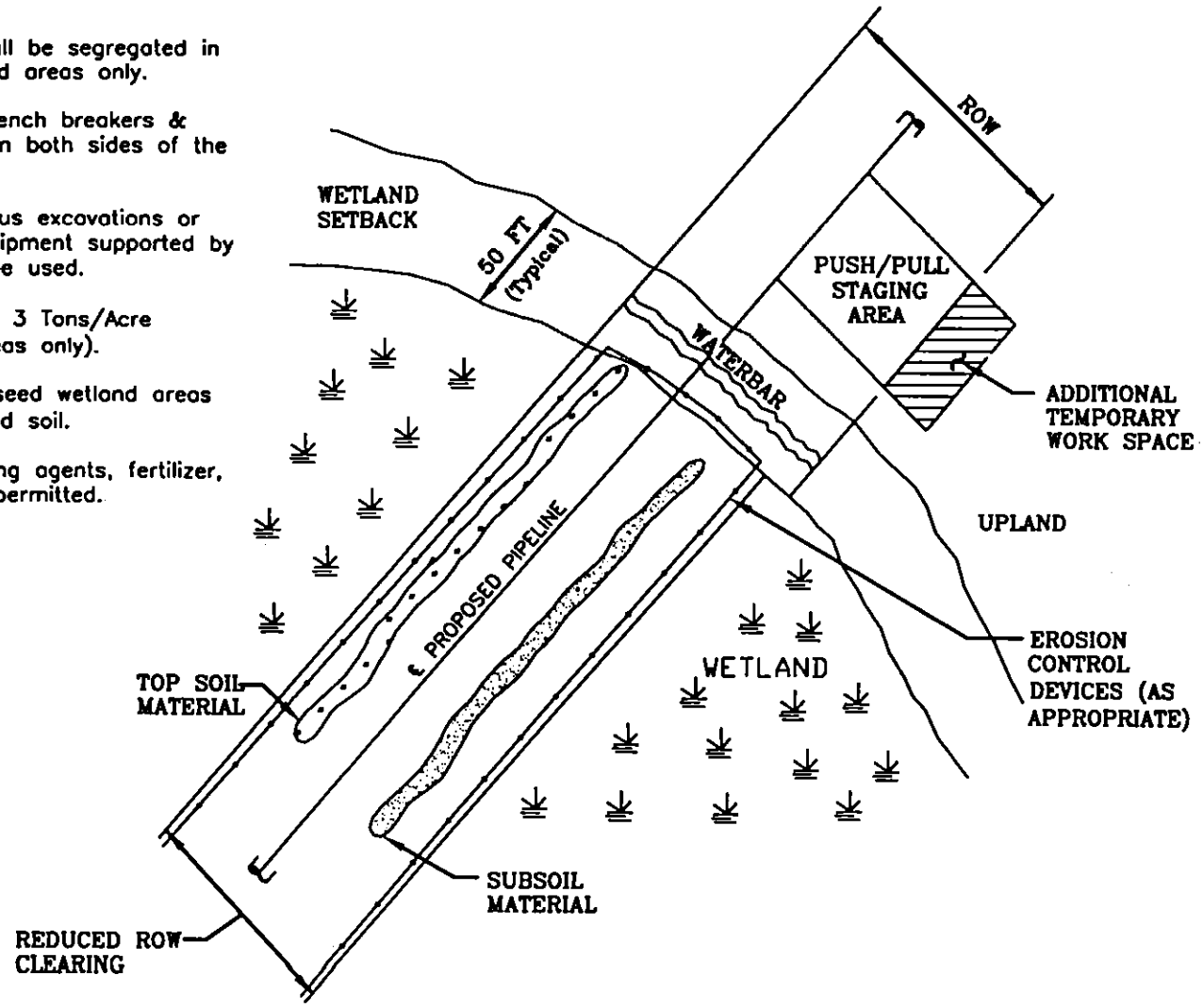
Tennessee Gas Pipeline Co.

FIGURE 5-3



NOTES:

1. Spoil shall be segregated in unsubmerged areas only.
2. Install trench breakers & waterbars on both sides of the wetland.
3. Amphibious excavations or tracked equipment supported by floats will be used.
4. Mulch at 3 Tons/Acre (Seeded areas only).
5. Do not seed wetland areas w/ saturated soil.
6. No binding agents, fertilizer, or lime is permitted.



NO.	DATE	REVISION	REV.	CKD.	APR.	File N

DRAWING NO. REFERENCE TITLE

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PROJ. I.D.: 013795	

TENNESSEE GAS PIPELINE
an El Paso Energy company

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
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PUSH/PULL WETLAND CONSTRUCTION (METHOD III)

Tennessee Gas Pipeline Co.

FIGURE 5-4

M.J. Harden Associates, Inc.
Kansas City, MO

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
Sheet 23 of 34

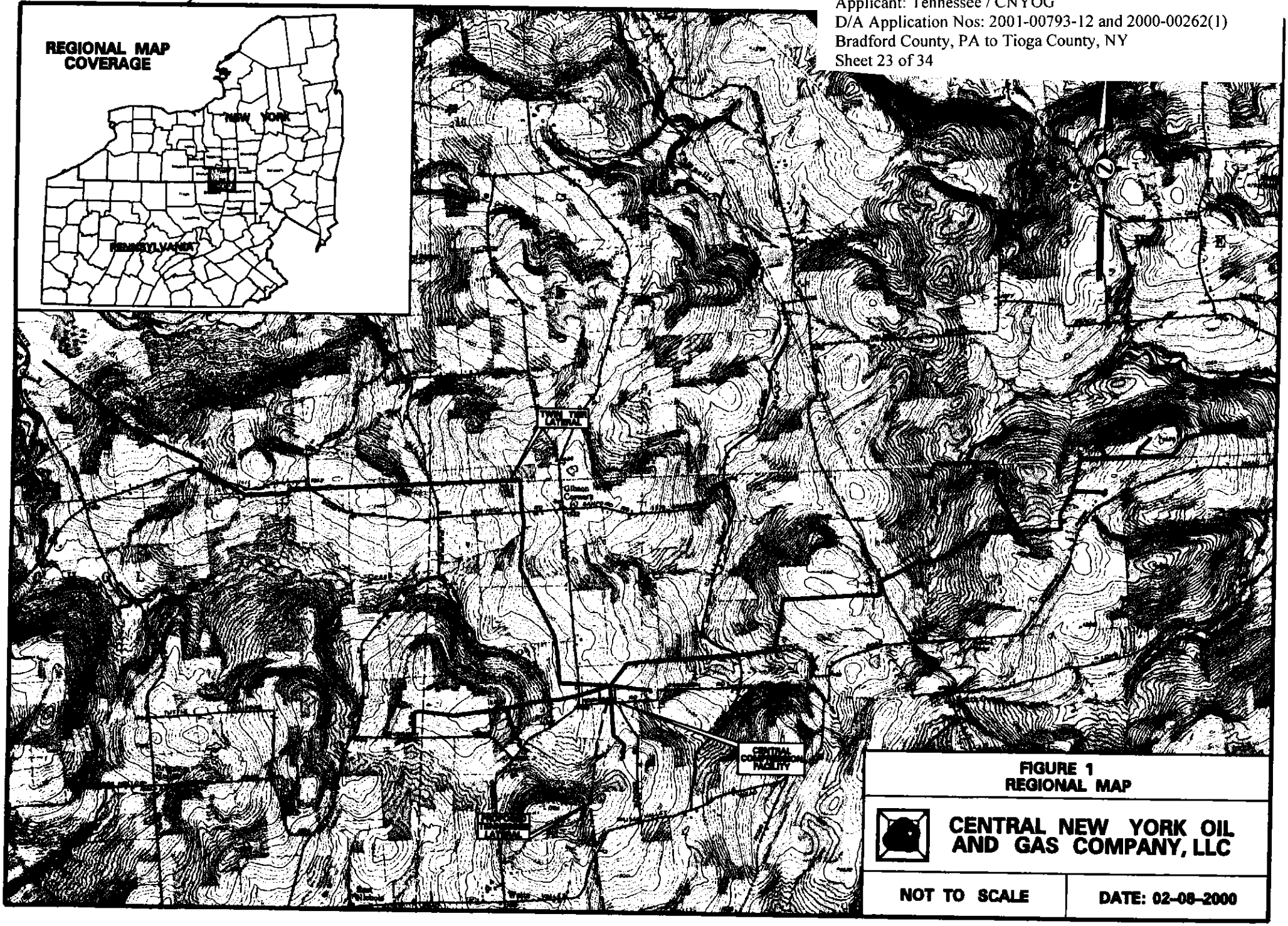
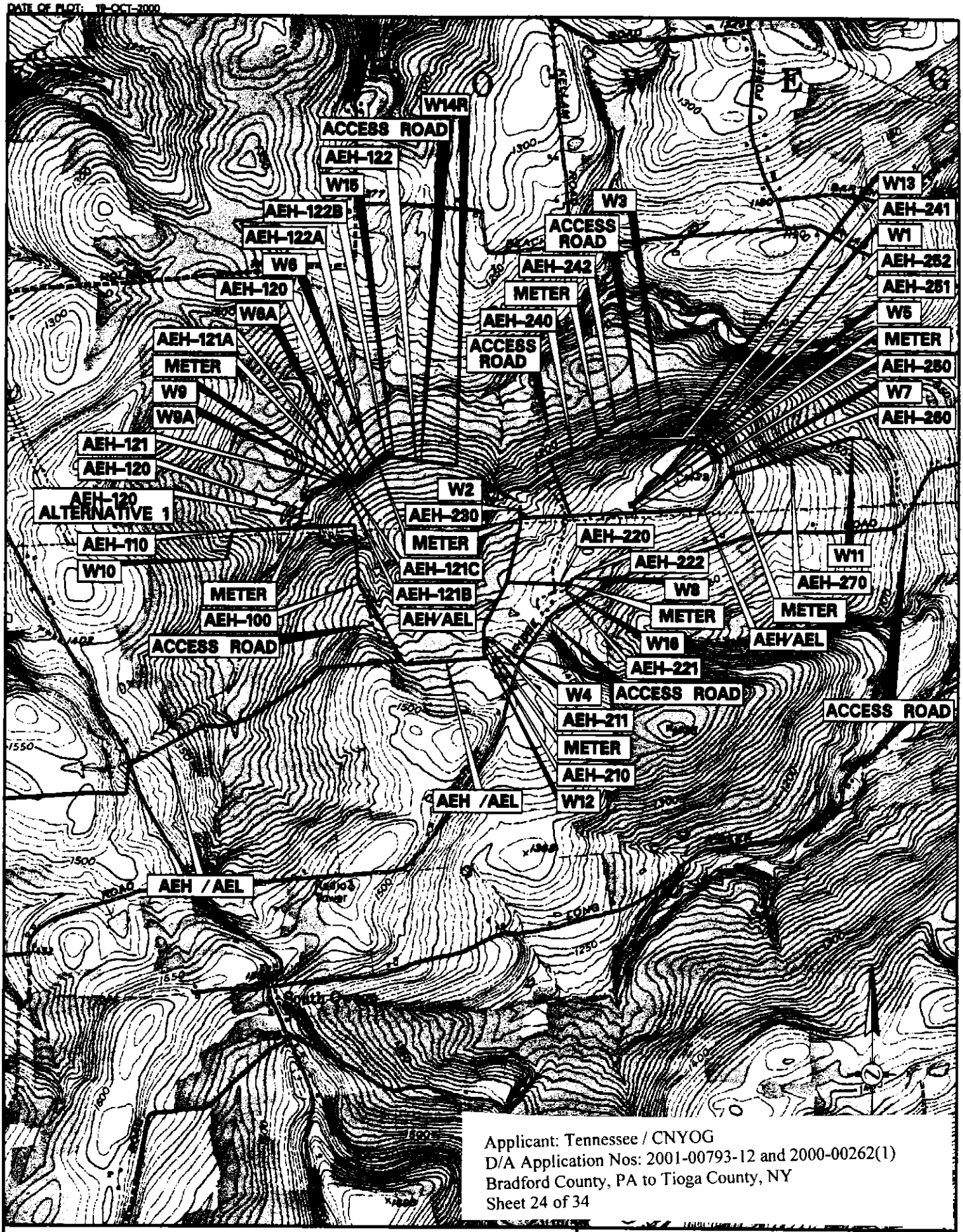


FIGURE 1
REGIONAL MAP

CENTRAL NEW YORK OIL AND GAS COMPANY, LLC

NOT TO SCALE | DATE: 02-08-2000



Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
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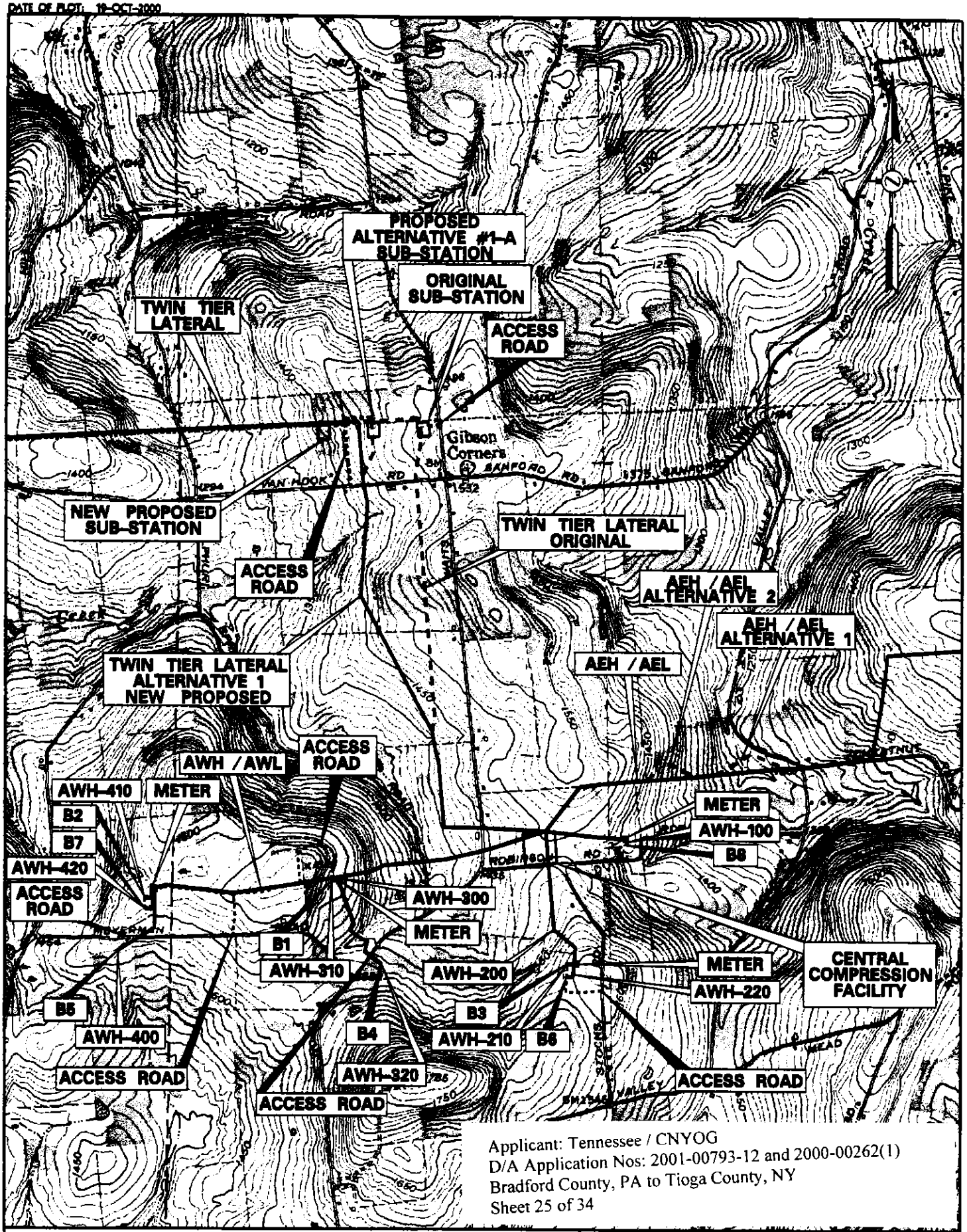
STAGECOACH STORAGE PROJECT FACILITIES MAP				FIG. 2
LOC.	TIOGA COUNTY, NEW YORK		REV.	CENTRAL NEW YORK OIL & GAS COMPANY, LLC
CKD. BY	ENG.	DATE 09-08-00	W.O.	
DRN. BY	SCALE 1" = 2000'	DWG. NO. 1 OF 3		

DATE OF PLOT: 19-OCT-2000

OWEGO & APALACHIN - USGS QUADS



Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
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M.J. Harden Associates, Inc.
Kansas City, MO / Houston, TX

STAGECOACH STORAGE PROJECT FACILITIES MAP			**FIG. 2**
LOC.	TIOGA COUNTY, NEW YORK		REV.
CKD. BY	ENG.	DATE 02-08-00	W.O.
DRN. BY	SCALE 1" = 2000'	DWG. NO. 2 OF 3	

CENTRAL NEW YORK OIL & GAS COMPANY, LLC

Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
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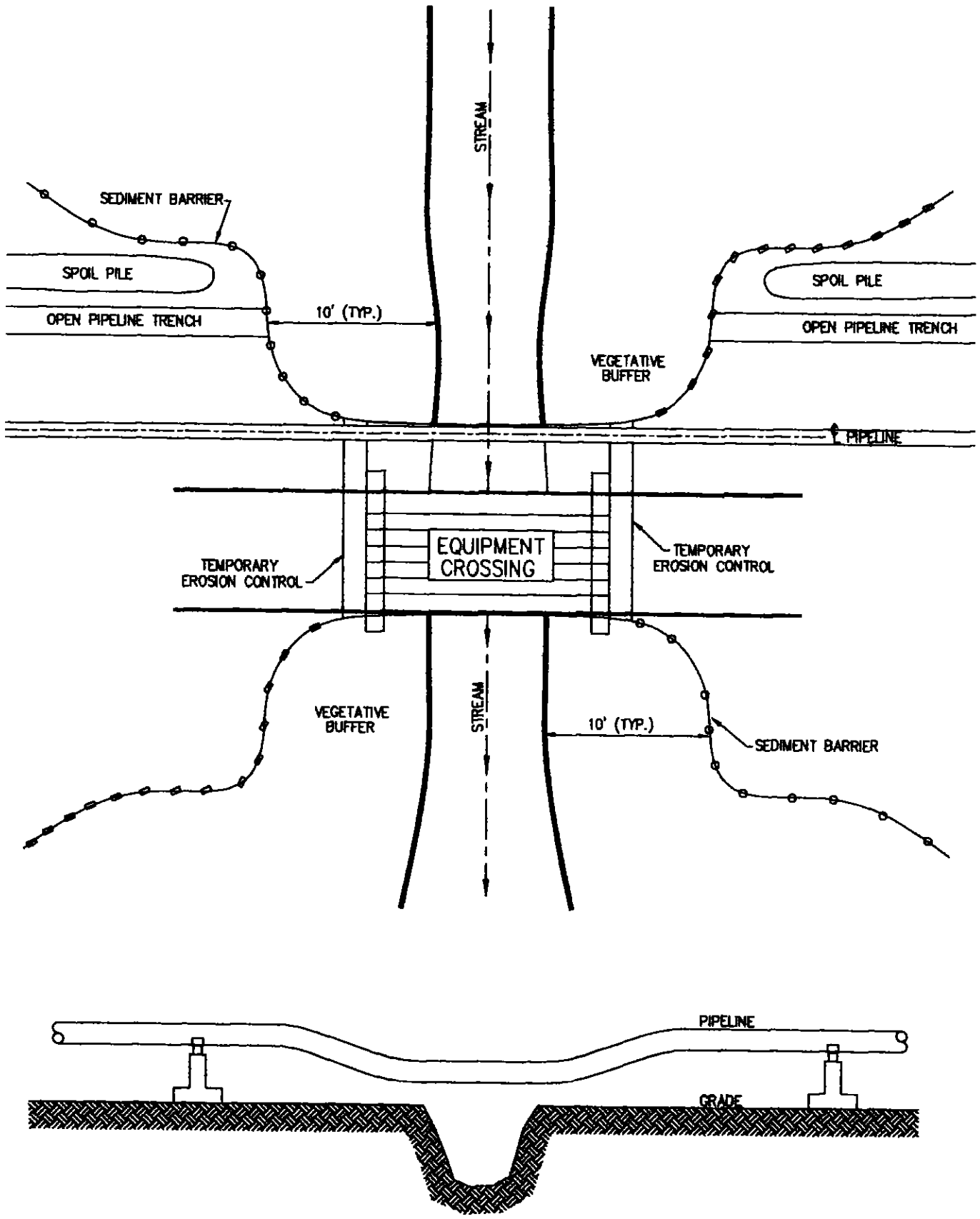
STAGECOACH STORAGE PROJECT
FACILITIES MAP

LOC.	TIOGA COUNTY, NEW YORK		REV.
CKD. BY	ENG.	DATE 02-08-00	W.O.
DRN. BY	SCALE 1" = 2000'	DWG. NO. 3 OF 3	

FIG. 2

CENTRAL NEW YORK OIL & GAS COMPANY, LLC



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CENTRAL NEW YORK OIL AND GAS COMPANY, LLC

FIGURE 3-A
STREAM CROSSING TECHNIQUE USING CONTINUOUS STRINGING OF PIPE LAID ACROSS STREAM PRIOR TO EXCAVATION AFTER PIPE IS STRUNG

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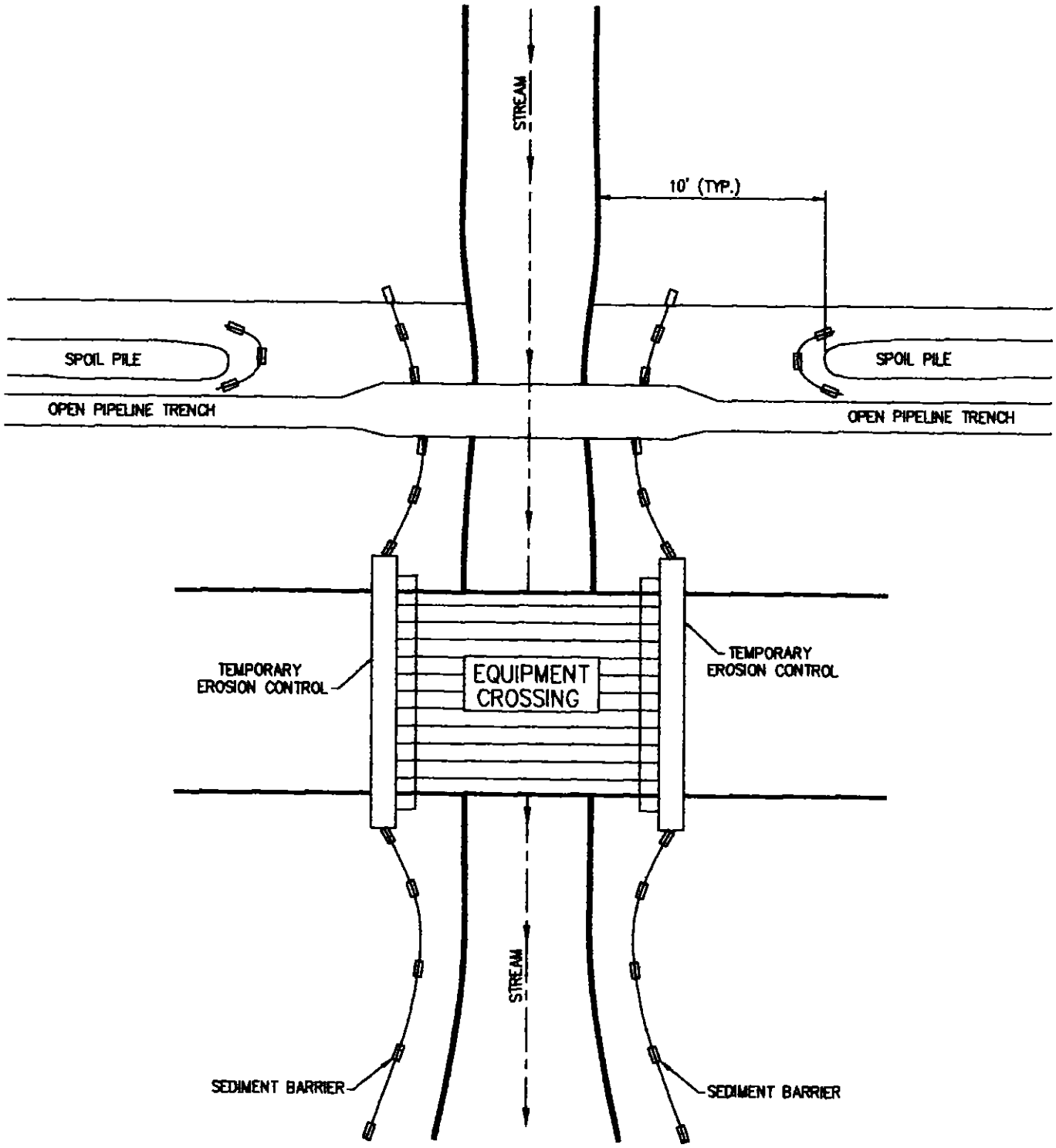

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FIGURE 3-8
STREAM CROSSING TECHNIQUE USING CONTINUOUS STRINGING STREAM OF PIPE AFTER PIPE IS LOWERED INTO DITCH

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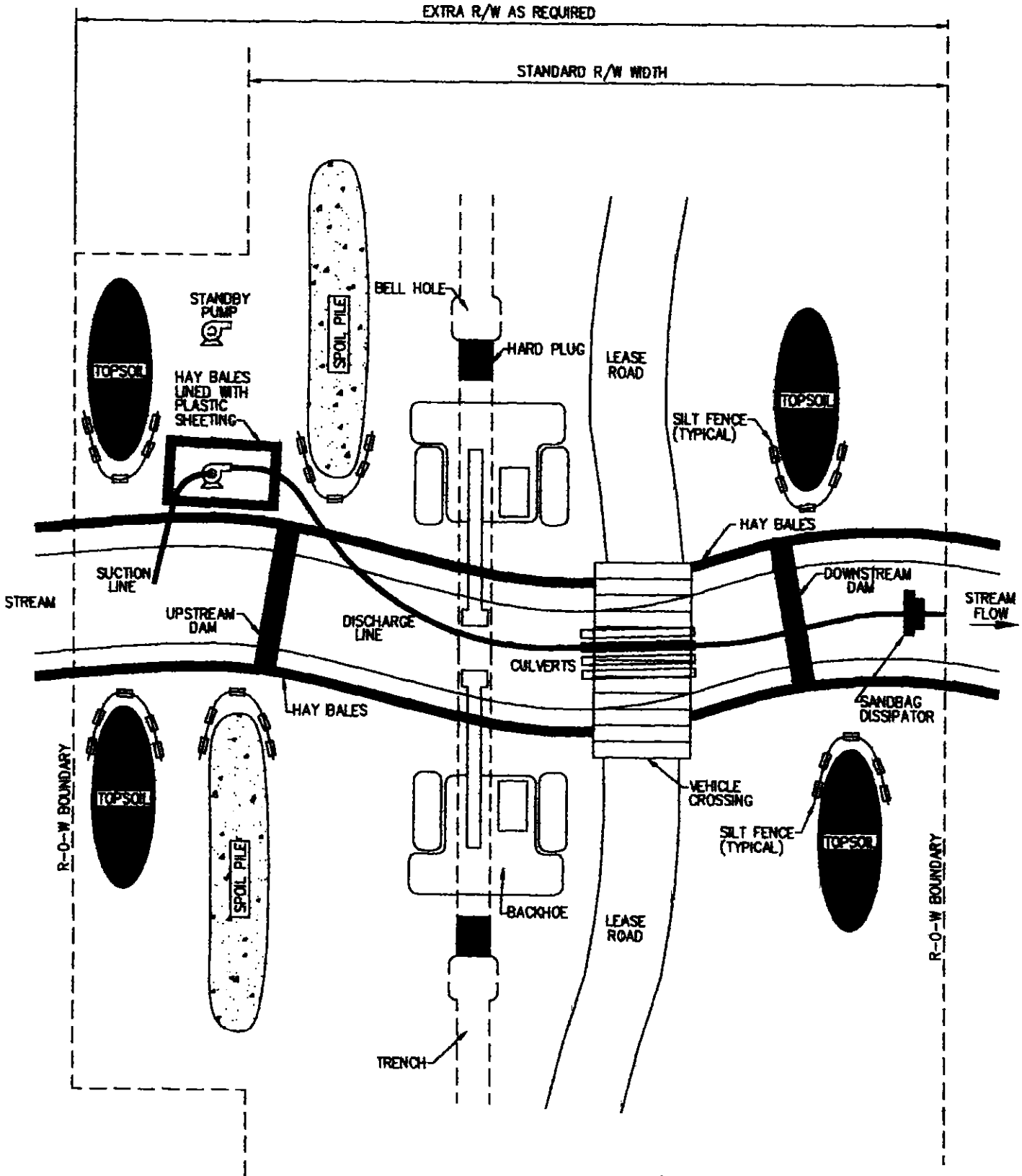

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FIGURE 4
DAM AND PUMP PROCEDURE

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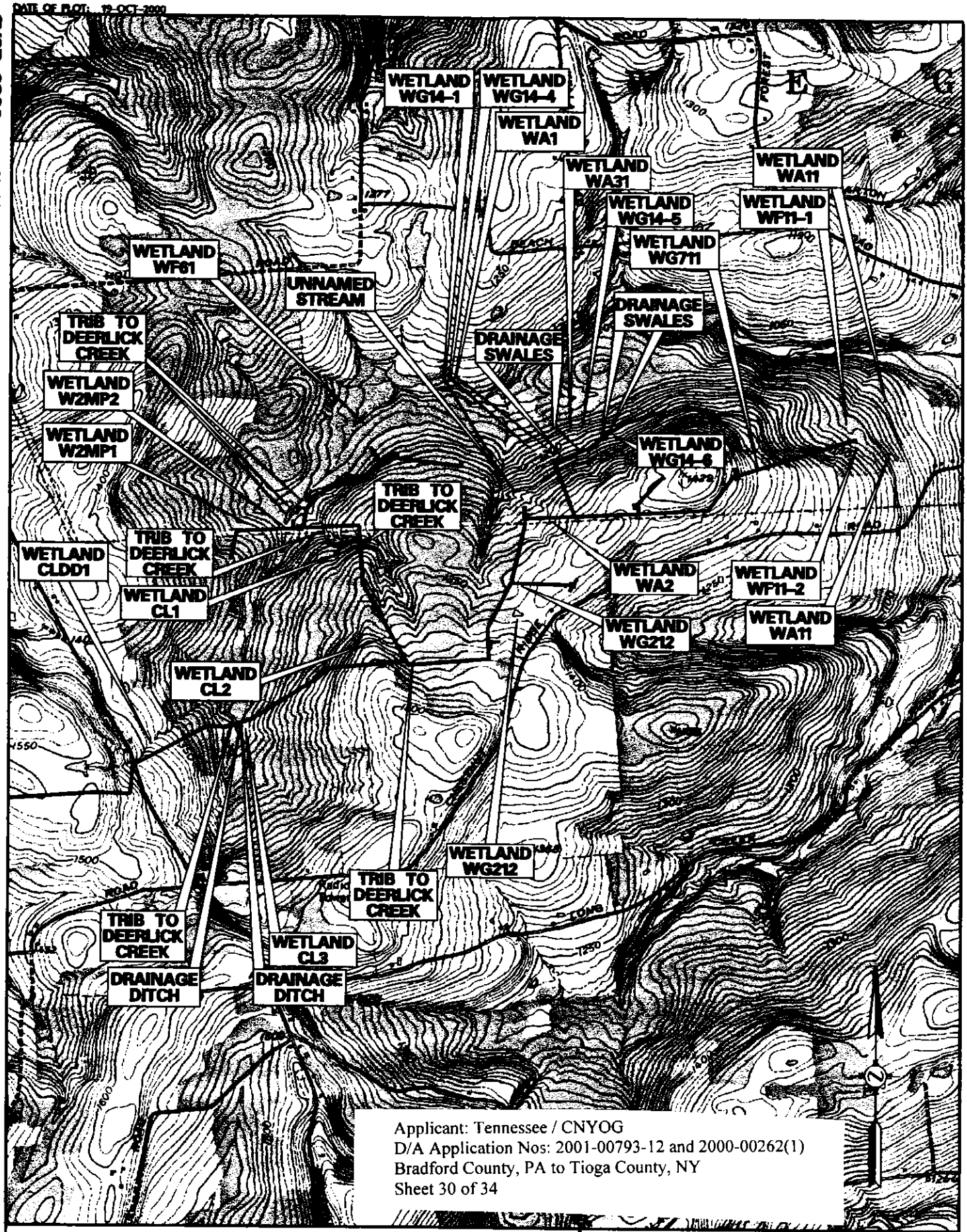

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Bradford County, PA to Tioga County, NY
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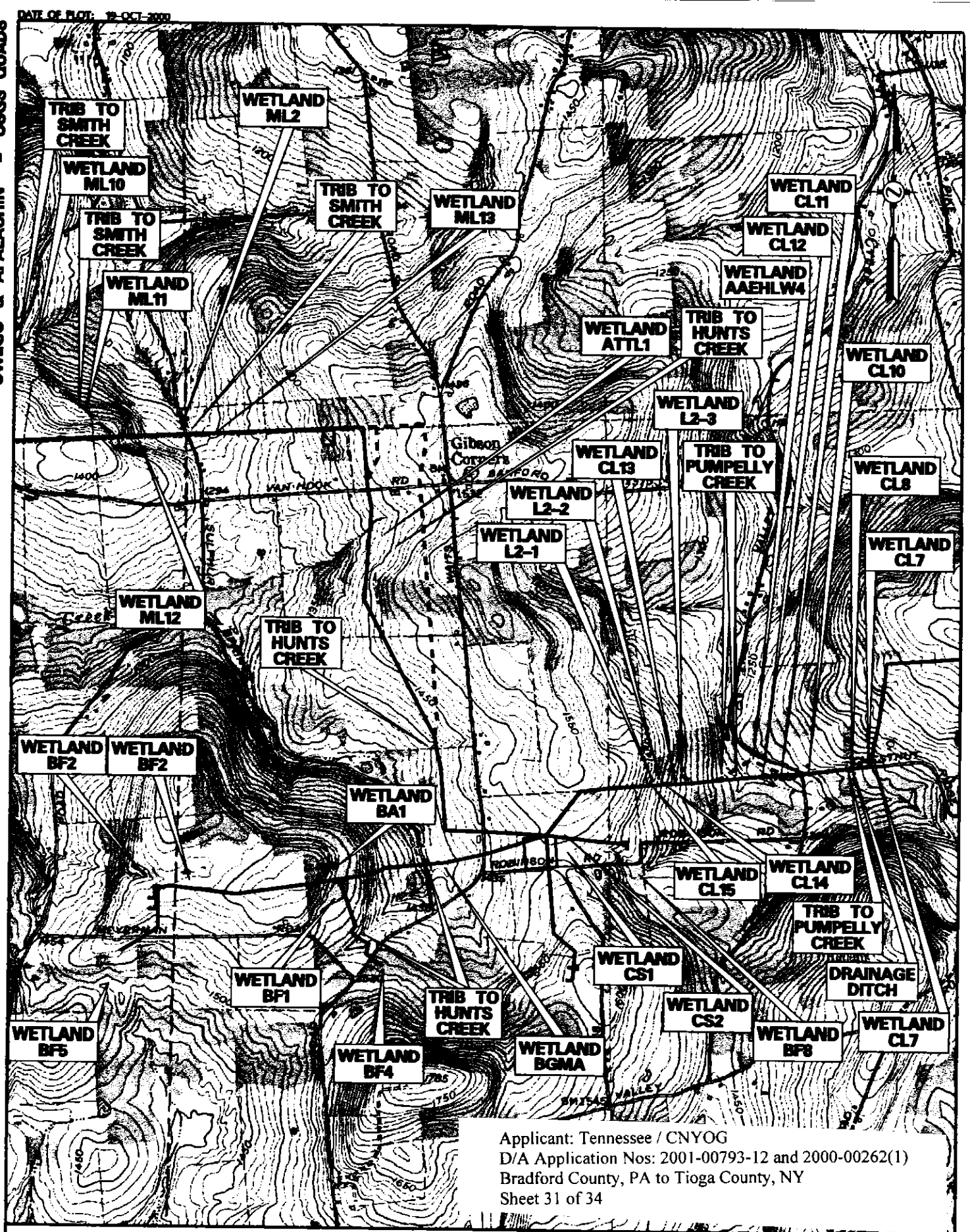
STAGECOACH STORAGE PROJECT
WETLAND AREA LOCATIONS

FIG. 5

LOC.	TIOGA COUNTY, NEW YORK		REV.
CKD. BY	ENG.	DATE 10-05-00	W.O.
DRN. BY	SCALE 1"=2000'	DWG. NO. 1 OF 2	

CENTRAL NEW YORK OIL & GAS COMPANY, LLC


DATE OF PLOT: 19-OCT-2000
OWEGO & APALACHIN - USGS QUADS
TRIB TO SMITH CREEK
WETLAND ML2
WETLAND ML10
TRIB TO SMITH CREEK
TRIB TO SMITH CREEK
WETLAND ML13
WETLAND ML11
WETLAND CL11
WETLAND CL12
WETLAND AAEHLW4
WETLAND ATTL1
TRIB TO HUNTS CREEK
WETLAND CL10
WETLAND L2-3
Gibson Corners
WETLAND CL13
TRIB TO PUMPELLY CREEK
WETLAND CL8
WETLAND L2-2
WETLAND L2-1
WETLAND CL7
WETLAND ML12
TRIB TO HUNTS CREEK
WETLAND BF2
WETLAND BF2
WETLAND BA1
WETLAND CL15
WETLAND CL14
TRIB TO PUMPELLY CREEK
WETLAND CS1
DRAINAGE DITCH
WETLAND BF1
TRIB TO HUNTS CREEK
WETLAND CS2
WETLAND BF8
WETLAND CL7
WETLAND BF5
WETLAND BF4
WETLAND BGMA
Applicant: Tennessee / CNYOG
D/A Application Nos: 2001-00793-12 and 2000-00262(1)
Bradford County, PA to Tioga County, NY
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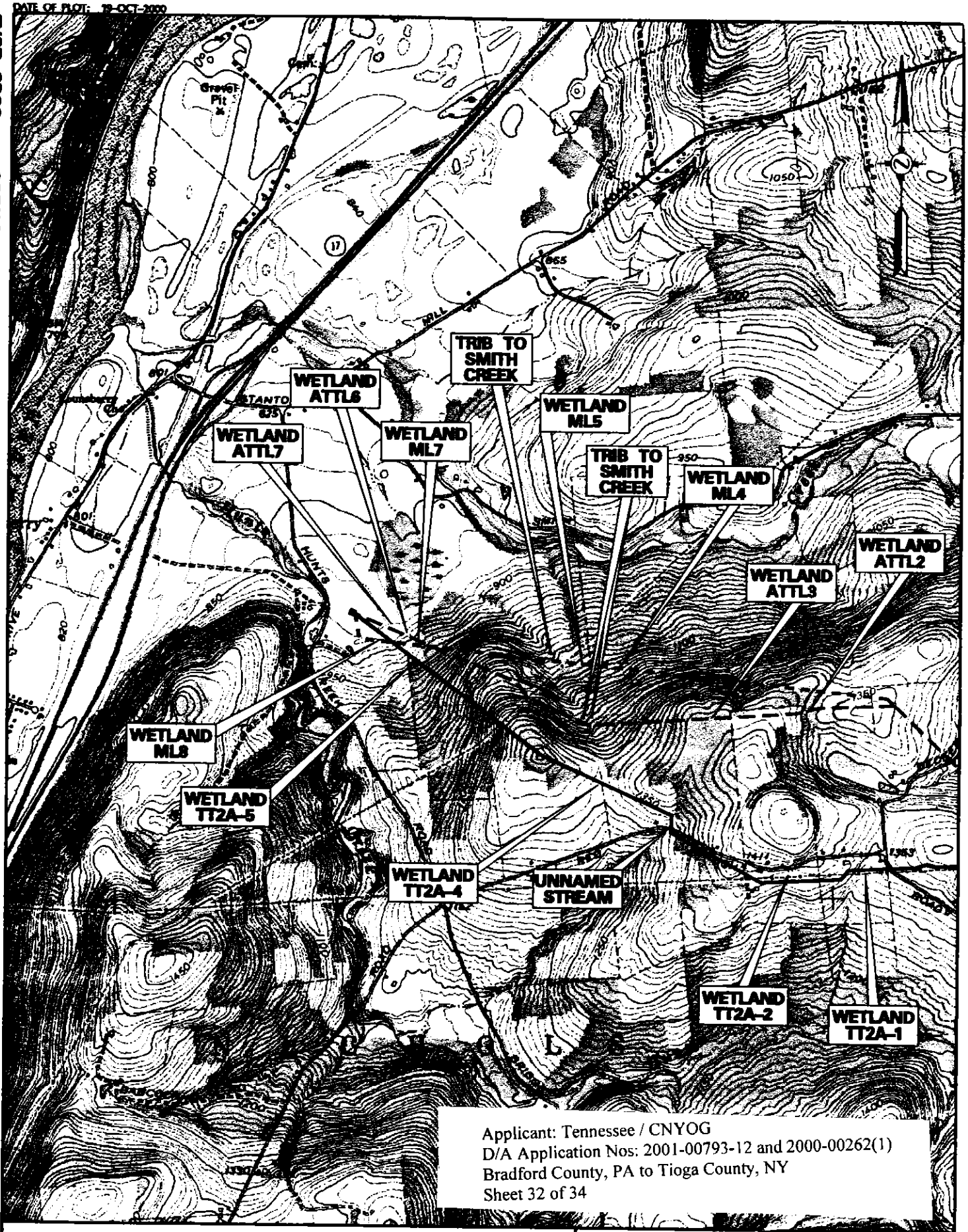
M.J. Harden Associates, Inc.
Kansas City, MO / Houston, TX
STAGECOACH STORAGE PROJECT
WETLAND AREA LOCATIONS
FIG. 5
LOC. TIOGA COUNTY, NEW YORK
REV.
CKD. BY
ENG.
DATE 10-05-00
W.O.
DRN. BY
SCALE 1"=2000'
DWG. NO. 2 OF 3
CENTRAL NEW YORK OIL & GAS COMPANY, LLC

DATE OF PLOT: 19-OCT-2000

OWEGO - USGS QUAD



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N.J. Hardan Associates, Inc.
Kansas City, MO / Houston, TX

STAGECOACH STORAGE PROJECT
WETLAND AREA LOCATIONS

FIG. 5

LOC.	TIOGA COUNTY, NEW YORK		REV.
CKD. BY	ENG.	DATE 10-05-00	W.O.
DRN. BY	SCALE 1" = 2000'	DWG. NO. 3 OF 3	

CENTRAL NEW YORK OIL & GAS COMPANY, LLC

Table 1

Waterbodies Crossed by the Stagecoach Storage Project

Facility	Station	Waterbody	Type a/	Crossing Width (ft)	State Water Quality Classification b/, c/	Fishery Type	Comments
AWH/AWL	1900	Tributary to Hunts Creek	I	<5	C	warmwater	Intermittent on USGS
AWH-320	1065	Tributary to Hunts Creek	I	10	C	warmwater	Not shown on USGS
AEH/AEL	3560	Pumpelly Creek	I	8	C	warmwater	Intermittent on USGS
AEH/AEL	12480	Tributary to Deerlick Creek	I	5	C	warmwater	Intermittent on USGS
AEH/AEL	5180	Tributary to Pumpelly Creek	I	N/A d/	C	warmwater	Intermittent on USGS
AEH-110	250	Tributary to Deerlick Creek	I	6	C	warmwater	Intermittent on USGS
AEH-120	260	Tributary to Deerlick Creek	I	5	C	warmwater	Intermittent on USGS
AEH-120	375	Tributary to Deerlick Creek	I	6	C	warmwater	Intermittent on USGS
AEH 100	2400	Tributary to Deerlick Creek	I	5	C	warmwater	Not shown on USGS
AEH 100	3302	Tributary to Deerlick Creek	I	5	C	warmwater	Not shown on USGS
AEH/AEL	15473	Tributary to Deerlick Creek	I	5	C	warmwater	Not shown on USGS
TTL	2965	Tributary to Hunts Creek	I	10	C	warmwater	Not shown on USGS
TTL	6730	Tributary to Hunts Creek	I	4	C	warmwater	Not shown on USGS
TTL	19410	Tributary to Hunts Creek	I	8	C	warmwater	Intermittent onUSGS
AEH-242	51	Drainage Swale	I	2	C	warmwater	Not shown on USGS
AEH-240	1051	Drainage Swales	I	2	C	warmwater	Not shown on USGS
	1086			2	C	warmwater	Not shown on USGS
	1157			2	C	warmwater	Not shown on USGS
	1194			2	C	warmwater	Not shown on USGS
	1292			2	C	warmwater	Not shown on USGS
	1317			2	C	warmwater	Not shown on USGS
	1353			2	C	warmwater	Not shown on USGS
	1749			2	C	warmwater	Not shown on USGS
Well W2	N/A	Drainage Swale	I	1.5	C	warmwater	Not shown on USGS

a/ I = Intermittent; P = Perennial.

b/ State Water Quality Designations: C – Fresh Surface Water. Best usage fishing, suitable for fish propagation and survival. Water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

c/ All streams are intermittent and not classified as fisheries. Stream classifications shown are based upon perennial stream they drain into.

d/ Pipeline crosses this culverted drainageway in existing asphalt roadway.

Table 2

Wetlands Crossed by the Stagecoach Storage Project [a/]

Facility	Entering Station No.	Wetland	NWI Class.	Crossing Length (feet)	Area Affected Const (acres)	Area Affected Oper.
AWH/AWL	1470	BGMA	PEM/PSS	485	0.84	0.00
AWH 100	270	CS-2	PEM	30	0.05	0.01
AEH/AEL	2010	CL15	PEM/PSS	40	0.07	0.00
AEH/AEL	2400	CL13	PEM	40	0.07	0.00
AEH/AEL	3450	CL12	PEM/PSS	400	0.69	0.00
AEH/AEL	5520	CL7	PEM	50	0.09	0.00
AEH/AEL	5550	CL6	PEM	50	0.09	0.00
AEH/AEL	12400	CL3	PEM	150	0.26	0.00
AEH 100 [b/]	2388	CL1	PEM	20	0.03	0.01
AEH/AEL [b/]	19323	WA2-1	POW/PEM/PSS	30	0.05	0.02
AEH 220 [b/]	100	WG212-1	PEM	120	0.20	0.06
AEH 110 [b/]	830	W2MP-1	PEM	40	0.07	0.02
AEH-242	104	WG14-6	PEM/PFO1	44	0.00[d/]	0.00[d/]
TTL	6350	ATTL1	PEM	160	0.37	0.00
TTL	11302	ML13	PSS	50	0.04	0.00
TTL	11880	ML2	PEM	80	0.07	0.00
TTL	12465	ML12	PEM/PSS	345	0.30	0.00
TTL	15950	TT2A-1	PEM	80	0.14	0.00
TTL	17300	TT2A-2	PEM	190	0.33	0.00
TTL	20790	TT2A-4	PSS/PF01	100	0.17	0.03
TTL	24270	TT2A-5	PEM	240	0.41	0.00
TTL	24975	ML8	PEM	40	0.07	0.00
Total Pipeline					**4.41**	**0.15**
Well B4	N/A	BF4-1	PEM	N/A	0.89	0.77
Well W11	N/A	WF11-1	PEM	N/A	0.13	0.03
Well W11	N/A	WF11-2	PEM	N/A	0.37	0.37
Well W13	N/A	WG14-6	PEM/PFO1	N/A	0.13	0.13
Total Aboveground					**1.52**	**1.30**
Access Road to W11	1420	WF11-2	PSS/PEM	20	0.02	0.01
Access Road to W11	1000	WA11-1	PEM	170	0.20	0.08
Total Access Road					**0.22**	**0.09**
Extra Work Spaces [c/]	**N/A**	**N/A**	**N/A**	**0.00**	**0.00**	**0.00**
Total					**6.15**	**1.54**

a/ Wetlands identified by field delineation according to the 1987 US ACE Manual for Delineating Jurisdictional Wetlands
b/ Permanent impacts result primarily from 20'-wide permanent access road located within permanent pipeline easement

c/ All extra work spaces for road, stream and wetland crossings are located outside wetland areas.
d/ Wetland area WG14-6 impacts for pipeline AEH-242 included in total impacts for Well W13